

VDOİHİ

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

Cilt 2.3.2.3.5.1.1.34

İsmail YILMAZ

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**VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılık Cilt 2.3.2.3.5.1.1.34**

*İsmail YILMAZ*

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## **KÜTÜPHANE BİLGİLERİ**

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*Dili: Türkçe + Matematik Mantık*



*K. Atatürk*

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Kuruluşunun  
100. Yılı Anısına

## DÜZELTME

Bu cilt için

$$fzS_{j_s, j_{ik}, j^{sa}}$$

simgesi yerine

$$fzS_{j_s, j_{ik}, j^{sa}}^{ISO}$$

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

$I$ : simetrimin bağımsız durum sayısı

$ll$ : simetrimin bağımlı durumlarından önce bulunan bağımsız durum sayısı

$I$ : simetrimin bağımlı durumlarından sonra bulunan bağımsız durum sayısı

$lk$ : 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

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

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

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

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

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

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

$f_Z S_{j_s}^{iS}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin durumuna bağlı ilk simetrik olasılık

$f_Z S_{j_s^{sa},0}^{iS}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin durumuna bağlı ilk simetrik olasılık

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

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

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

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

${}^0 S_{j_s,j_i}^{iS}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu simetrisinin ilk ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılık

${}^0 f_Z S_{j_s,j_i,0}^{iS}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılık

${}^0 f_Z S_{j_s,j_i,D}^{iS}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımlı simetrisinin ilk ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılık

$f_Z S_{j_s,j^{sa}}^{iS}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre ilk simetrik olasılık

$f_Z S_{j_s,j^{sa},0}^{iS}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve herhangi bir

durumunun bulunabileceği olaylara göre ilk simetrik olasılık

$fzS_{j_s, j^{sa}, D}^{iS}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre ilk simetrik olasılık

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$fzS_{j_{ik}, j^{sa}}^{iS}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin herhangi iki durumuna bağlı ilk simetrik olasılık

$fzS_{j_{ik}, j^{sa}, 0}^{iS}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin herhangi iki durumuna bağlı ilk simetrik olasılık

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$fzS_{j_{ik}, j_i}^{iS}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin her durumunun bulunabileceği olaylara göre ilk simetrik olasılık

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durumunun bulunabileceği olaylara göre ilk simetrik olasılık

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$f_Z S_{j_s^{sa}}^{iSS}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin durumuna bağlı ilk düzgün simetrik olasılık

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herhangi iki ve son durumuna bağlı ilk düzgün olmayan simetrik olasılık

$fz \overset{ISO}{\Rightarrow}_{j_s, \Rightarrow j_{ik}, j^{sa}, j_i, D}$ : 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 ilk düzgün olmayan simetrik olasılık

$fz, 0 \overset{ISO}{\Rightarrow}_{j_s, \Rightarrow j_{ik}, j^{sa}, j_i}$ : 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 ilk düzgün olmayan simetrik olasılık

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${}^0 \overset{ISO}{\Rightarrow}_{j_s, \Rightarrow j_{ik}, j^{sa}, j_i, 0}$ : bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir

bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı ilk düzgün olmayan simetrik olasılık

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# E2

## BAĞIMLI ve BİR BAĞIMSIZ OLASILIKLI FARKLI DİZİLİMSİZ DAĞILIMLAR

### Bağımlı ve Bir Bağımsız Olasılıklı Farklı Dizilimsiz Dağılımlar

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

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 dizilimsiz dağılımlar, dağılımın ilk durumuyla başlayan (bunun yerine farklı dizilimsiz 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 hariçinde ilk dağılımının 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) dağılımlarla bağımlı ve bir bağımsız olasılıklı dağılımlar elde edilir. Farklı dizilimsiz 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 duruma 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 ve bir bağımsız 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 durumlu/bağımsız/bağımsız/bağımsız” 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 ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlardaki sırasına göre verilen eşitliklerdeki toplam ve sınırlı sınır değerleri, simetrinin küçükten-büyükçe sıralanan dağılımlarına göre verildiğinden bu dağılımlarda da aynı sıralama kullanılmaya devam edilecektir. Bağımlı ve bir bağımsız 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 duruma başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu bağımlı ve bir bağımsız olasılıklı dağılımın ilk bağımlı durumuyla başlayan dağılımlarda, simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılığın eşitlikleri verilmektedir.

**SİMETRİDEN SEÇİLEN ÜÇ DURUMA GÖRE İLK DÜZDÜN OLMAYAN SİMETRİK OLASILIK**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$k_z: z = 2 \wedge k_z = k_2 \Rightarrow$$

$$f_z^S j_s j_{ik} j^{sa} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \right)$$

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

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

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

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

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



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

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

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

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

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

$$\sum_{j_{sa}^{ik}=0}^{n_{sa} - j_{sa} - 1} \binom{n_{sa} - j_{sa} - 1}{j_{sa}^{ik}} \cdot$$

$$\sum_{j_{ik}=0}^{n_{ik} - j_{sa} - 1} \binom{n_{ik} - j_{sa} - 1}{j_{ik}} \cdot \sum_{j^{sa}=l_{sa} + n - D}^{n - l_{sa} - 1} \binom{n - l_{sa} - 1}{j^{sa}}$$

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

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \binom{n_{ik}+j_{ik}-j^{sa}-l_{k_2}}{n_{sa}=n-j^{sa}+1}$$

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

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

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

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

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

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

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{sa}-j_{sa}^{ik})}^{( )} \frac{(n_i + j_{ik} + j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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

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

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

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

$(D \geq n < n) \wedge \mathbb{k}_1 = 0 \wedge$

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

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{n_{ik} = n_{is} + j_s - \mathbb{k}_1}^{(\cdot)} \sum_{(n_{sa} = j_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

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

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

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

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

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

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

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

$$(D \geq n < n \wedge l_s > n +) \wedge I = \mathbb{k} \geq 0 \wedge$$

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

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

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

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

$$\begin{aligned}
fz^S_{j_s, j_{ik}, j^{sa}} &= \left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)}^{(n-s+1)} \right. \\
&\quad \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(\cdot)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\cdot)} \\
&\quad \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
&\quad \sum_{n_{is} + j_s - j_{ik} - j_{sa}^{ik} + j_{ik} - j_{sa} - k_2} \\
&\quad \sum_{n_{ik} = n + k_2 - j_{ik}} \sum_{(n_{sa} = n - j^{sa})} \\
&\quad \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
&\quad \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
&\quad \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
&\quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
&\quad \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
&\quad \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
&\quad \left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)}^{(n-s+1)} \right. \\
&\quad \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(n + j_{sa} - s)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(n + j_{sa} - s)} \\
&\quad \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}
\end{aligned}$$

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

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

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

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

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

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



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

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

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

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

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

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(n-s+1)} \sum_{l_{sa}=l_{sa}+n-j_{sa}+1}^{(n-s+1)} \sum_{i_s+j_{ik}-1}^{(n-s+1)} \sum_{i_{ik}+j_{sa}-j_{sa}^{ik}}^{(n-s+1)} \sum_{n_{is}+\mathbb{k}}^{(n-s+1)} \sum_{n_{is}+\mathbb{k}}^{(n-s+1)} \sum_{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{(n-s+1)} \sum_{n_{ik}=n_{ik}-j_{ik}+1}^{(n-s+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n-s+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \right)$$

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

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

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

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

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

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

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

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

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

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

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

$$fz = \sum_{j_{ik} = j_{sa}^{ik} + j_{sa} - j_{sa}}^{(n + j_{sa} - s)} \sum_{j_{sa} = l_{sa} + n - D}^{(n - j_s + 1)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

$$\begin{aligned}
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{i_s} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{i_k} = n + \mathbb{k}_2 - j_{i_k} + 1}^{n_{i_s} + j_s - j_{i_k} - \mathbb{k}_1} \sum_{(n_{s_a} = n - j^{s_a} + 1)}^{(n_{i_k} + j_{i_k} - j^{s_a} - \mathbb{k}_2)} \\
& \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
& \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
& \frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} - n_{s_a} - j^{s_a} + 1)!} \cdot \\
& \frac{(n_{s_a} + j^{s_a} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!}{(n_{i_k} + l_{i_k} - j_{i_k} - j_{s_a}^{i_k})! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot \\
& \left. \frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j^{s_a} - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!} \right) - \\
& \sum_{k=1} \sum_{(j_s = j_{i_k} - j_{s_a}^{i_k} + 1)}^{()} \\
& \sum_{j_{i_k} = l_i + n + j_{s_a}^{i_k} - D - s}^{n + j_{s_a}^{i_k} - s} \sum_{(j^{s_a} = j_{i_k} + j_{s_a} - j_{s_a}^{i_k})}^{()} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{i_s} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{i_k} = n_{i_s} + j_s - j_{i_k} - \mathbb{k}_1} \sum_{(n_{s_a} = n_{i_k} + j_{i_k} - j^{s_a} - \mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k})!}
\end{aligned}$$

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

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

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

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

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

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

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

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

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

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

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

$$S_{i,j} = \left( \sum_{k=1}^{n+j_{sa}^{ik}-s} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

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

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

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

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

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

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

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{l=1}^{(j_{ik} - j_{sa}^{ik})} \right) \\
& \sum_{m=1}^{n + j_{sa}} \sum_{n-D}^{(j_{ik} - j_{sa}^{ik})} (j_{ik} - j_{sa}^{ik} + j_{sa} - j_{sa}^{ik}) \\
& \sum_{n_i=1}^n \sum_{n_i=1}^{n+1} (n_{is} = n + l_k - j_s + 1) \\
& \sum_{n_{is} + j_{sa} - j_{ik} - l_{k1}}^{n} \sum_{n_{ik} + j_{ik} - j^{sa} - l_{k2}}^{n} \\
& \sum_{n_{sa} = n - j^{sa} + 1}^{n_{sa} = n - j^{sa} + 1} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

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

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

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

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

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - j_s)!}{(D + j_s + s - l_i - l_{k_1} - l_{k_2})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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

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

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

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

$$(D \geq n < n \wedge l_s > D - n + l_{k_1} + l_{k_2} \wedge$$

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

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

$$s > 3 \wedge s = l_{k_1} + l_{k_2} \wedge$$

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

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(\ )} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \right)$$

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

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

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

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

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

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

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-k_1}^{(n-s+1)} \sum_{(n_{sa}^{ik}+j_{ik}-j^{sa}-k_2)}^{(n-s+1)}$$

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

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

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

$$D \geq n < n \wedge l_s > 0 - n + 1 \wedge$$

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

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

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

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

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

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

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

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



$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}^{(n-s+1)} \right.$$

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

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

$$\sum_{n_{is} + j_s - j_{ik} - k_1}^{(n_{is} + j_s - j_{ik} - k_1)} \sum_{(n_{sa} = n - j^{sa} + k_2)}^{(n_{sa} = n - j^{sa} + k_2)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik}}^{(n_{ik} = n + k_2 - j_{ik})} \sum_{(n_{sa} = n - j^{sa} + k_2)}^{(n_{sa} = n - j^{sa} + k_2)}$$

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

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

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

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

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

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

$$\left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}^{(n-s+1)} \right.$$

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

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

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

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

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

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

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

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

$$\sum_{k=0}^{(n-s+1)} \sum_{l=0}^{D-s+1}$$

$$\sum_{j_{ik}=0}^{j_{sa}^{ik}-1} \sum_{j_{sa}^{ik}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \right) \\
& \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D}^{n + j_{sa}^{ik} - s} \sum_{(j_{sa} = j_{ik} + j_s - 1)}^{(n + j_{sa} - s)} \\
& \sum_{n_{ik} = n_{is} + j_s - k_1}^{n_{is} + j_s - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n - j_s + 1)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$



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

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$$\begin{aligned}
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{i_s} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{i_k} = n + \mathbb{k}_2 - j_{i_k} + 1}^{n_{i_s} + j_s - j_{i_k} - \mathbb{k}_1} \sum_{(n_{s_a} = n - j^{s_a} + 1)}^{(n_{i_k} + j_{i_k} - j^{s_a} - \mathbb{k}_2)} \\
& \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
& \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
& \frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} - n_{s_a} - j^{s_a} + 1)!} \cdot \\
& \frac{(n_{s_a} + j^{s_a} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!}{(n_{i_k} + l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot \\
& \left. \frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j^{s_a} - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!} \right) - \\
& \sum_{k=1} \sum_{(j_s = j_{i_k} - j_{s_a}^{i_k} + 1)}^{()} \\
& \sum_{j_{i_k} = l_i + n + j_{s_a}^{i_k} - D - s}^{n + j_{s_a}^{i_k} - s} \sum_{(j^{s_a} = j_{i_k} + j_{s_a} - j_{s_a}^{i_k})}^{()} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{i_s} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{i_k} = n_{i_s} + j_s - j_{i_k} - \mathbb{k}_1} \sum_{(n_{s_a} = n_{i_k} + j_{i_k} - j^{s_a} - \mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k})!}
\end{aligned}$$

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

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

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

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

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

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

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

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

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

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

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

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

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \left( \sum_{k=1}^{(n_{sa}+1)} \binom{n_{sa}+1}{k} \binom{n_{sa}+1}{j_{sa}+1-k} \right) \cdot \\
& \sum_{i_k=j_s+j_{sa}^{ik}}^{n_{sa}+k-s} \binom{n_{sa}+k-s}{i_k} \binom{n_{sa}+k-s}{j_s+j_{sa}^{ik}-i_k} \cdot \\
& \sum_{i_s=i_k+l_k}^{n_{sa}+k-s} \binom{n_{sa}+k-s}{i_s} \binom{n_{sa}+k-s}{j_s+j_{sa}^{ik}-i_s} \cdot \\
& \sum_{i_{ik}=j_s+j_{sa}^{ik}-i_s}^{n_{sa}+k-s} \binom{n_{sa}+k-s}{i_{ik}} \binom{n_{sa}+k-s}{j_s+j_{sa}^{ik}-i_{ik}} \cdot \\
& \sum_{i_{is}=n_{sa}+k-s-i_{ik}}^{n_{sa}+k-s} \binom{n_{sa}+k-s}{i_{is}} \binom{n_{sa}+k-s}{j_s+j_{sa}^{ik}-i_{is}} \cdot \\
& \sum_{i_{ik}=n_{sa}+k-s-i_{is}}^{n_{sa}+k-s} \binom{n_{sa}+k-s}{i_{ik}} \binom{n_{sa}+k-s}{j_s+j_{sa}^{ik}-i_{ik}} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$n_{is} + j_s - j_{ik} - \mathbb{k}_1 \wedge l_s > D - n + 1 \wedge$$

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

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

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



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

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

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

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

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

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

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

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

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

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

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

$(D \geq n < n \wedge l_s > D - n) \wedge$

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

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

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

$(l_s = 2 \wedge l_k = l_{k_1} + l_{k_2}) \Rightarrow$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)!(j_{ik} - j_s - j_s + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n_{sa} - s)!(n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{\lfloor \frac{n - l_{sa} + n - D - j_{sa} + 1}{2} \rfloor} \sum_{s=0}^{n - l_{sa} - k - s} \binom{(\quad)}{j_s + j_{sa}^{ik} - 1} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}) \\
& \sum_{n_i = n + k_1}^n \sum_{(n_{is} = n + k_1 - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!} \cdot
\end{aligned}$$

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

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

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

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

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

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(l_i - n_{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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

$$D \geq n < n \wedge l_s > 2 - n + 1 \wedge$$

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

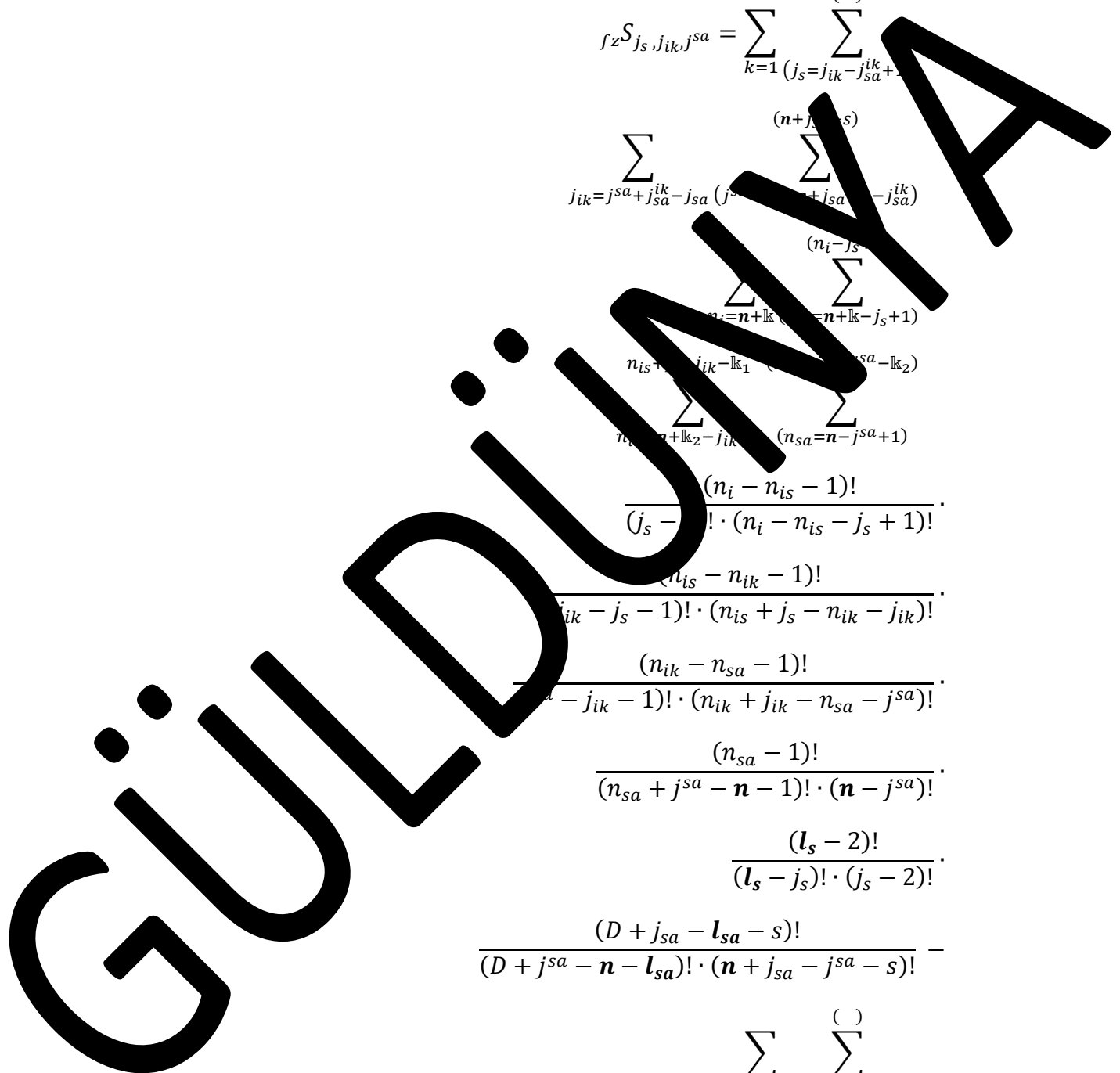
$$s > 3 \wedge s = s + k \wedge$$

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{ik} + j_{sa} - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - j_s)!}{(D + j_s + s - l_i - l_{k_1} - l_{k_2})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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

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

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

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

$$(D \geq n < n \wedge l_s > D - n + l_{k_1} + l_{k_2} \wedge$$

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

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

$$s > 3 \wedge s = l_{k_1} + l_{k_2} \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{k=1}^{j_s - j_{ik} - j_{sa}^{ik}} \binom{D - s}{j_{sa}^{ik} - j_{sa} - j_{sa}^{ik}}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$f_z^S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)}$$

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

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

$$\sum_{(n_i=n+k_1)}^{(n_i-j_s)}$$

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

$$\sum_{(n_{is}=j_{ik}-k_1)}^{(n_i-j_s)}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n-s+1)}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(n - j_s)! \cdot (j_s - 2)!}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$f_z \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

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

$$\sum_{n_i = n + j_{sa}^{ik} - D - 1}^n \sum_{(n_i = j_s + 1)}^{(n + j_s + 1)}$$

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

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

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

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

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

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

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

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

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

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



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

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

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l_s - j_{sa}^s)! \cdot (n - j_{sa}^s - j_{sa}^{ik} - l_s - 1)!}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s > D - n + 1 \wedge \\ & 2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}^s \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^s > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee \\ & (D \geq n < n \wedge l_s > D - n + 1 \wedge \\ & 2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}^s \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^s > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge \\ & (D \geq n < n \wedge l_s = 0 \wedge \\ & j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge \\ & s: \{j_{sa}^s - \mathbb{k}_1, j_{sa}^{ik}, j_{sa}^i\} \wedge \\ & s > 3 \wedge s = s + \mathbb{k} \wedge \\ & \mathbb{k}: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow \end{aligned}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$(D - l_i)!$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$f_z \mathcal{S}_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + \dots)}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_{ik} = j_s + j_{sa}^{ik} + \dots)}^{(l_{sa} + n - D - j_{sa})} \sum_{(n_i = n + \mathbb{k}_1 + \dots)}^{(n_i - j_s)} \sum_{(n_{is} = n + \mathbb{k}_2 - j_{ik} + \dots)}^{(n_i - j_s)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^i)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa}^i - n - 1)! \cdot (n - j_{sa}^i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^i - l_{ik})! \cdot (j_{sa}^i + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa}^i - n - l_{sa})! \cdot (n + j_{sa} - j_{sa}^i - s)!} + \sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)}^{(n-s+1)}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

$$(D \geq n < n \wedge l = \mathbb{k} > = 2 \wedge$$

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

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

$$s \geq 3 \wedge s = \mathbb{k}_1 \wedge$$

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

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

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

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

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

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{(n-s+1)} \sum_{l=0}^{(D-s+1)} \binom{n-s+1}{k} \binom{D-s+1}{l} \\
& \sum_{j_{ik} + j_{sa}^{ik} - 1}^{(n)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(n_i - j_s + 1)} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(n)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(n)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$(D > 1) \wedge n \wedge l_s > D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

$$f_z^S j_s, j_{sa} = \sum_{k=1}^{j_s} \sum_{(j_s=l_s+n-D)}^{j_{sa}^{ik}-j_{sa}^{ik}+1} \sum_{(j_{sa}+j_{sa}^{ik})}^{n+j_{sa}-s} \sum_{(j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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

$$\sum_{k=1}^{\binom{()}{j_s = i_{ik} - j_{sa}^{ik} + 1}} \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(n + j_{sa} - s)}$$

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

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

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

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

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

- $((D \geq n < n \wedge l_s > D - n + 1) \wedge$
- $2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $(l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$
- $(D \geq n < n \wedge l_s > D - n + 1 \wedge$
- $2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $(l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$
- $(D \geq n < n \wedge l_s > D - n + 1 \wedge$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-k_2)} \binom{(\quad)}{\quad}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - 2)!}{(D + j^{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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

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

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

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

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

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

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

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

$$(D > n < n \wedge l_s = 0 \wedge$$

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

$$(j_{sa}^i, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i) \wedge$$

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

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

$$\begin{aligned}
 f_{zS} S_{j_s, j_{ik}, j^{sa}} &= \sum_{k=1}^{(l_{ik} + n - D - j_{sa}^{ik})} \sum_{(j_s = l_s + n - D)} \\
 &\sum_{j_{ik} = l_{ik} + n - D}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \\
 &\sum_{n_i = n + k}^n \sum_{(n_{is} = n - k - j_s + 1)}^{(n_i - j_s + 1)} \\
 &\sum_{n_{ik} = n + k_2 - j_{ik}}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + k_2)}^{(j_{ik} - k_1 - k_2)} \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot \\
 &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - k_1 - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}^{(n-s+1)} \\
 &\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}
 \end{aligned}$$

GÜLDEN



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\mathbb{k}_2: z \geq 2 \wedge \mathbb{k} = \mathbb{k}_1 \vee \mathbb{k}_2) \Rightarrow$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{i=l_i+n}^{s+1} \sum_{j=l_i+n}^{s+1}$$

$$\sum_{i+j_{sa}^{ik}-1}^{j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{i+j_{sa}^{ik}-1}^{j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{i=0}^n \sum_{i=0}^{i+1}$$

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

$$\sum_{n_{ik}+j_s-i+l_{ik_1}}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

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

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

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

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

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

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

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

$$(D \geq n < n \wedge l = l_{k_1} > 0 \wedge$$

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

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

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



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

$$fz \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})} \binom{(\quad)}{\quad} \right)$$

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

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

$$\sum_{n_{is}+j_s-j_{ik}} \binom{(n_{ik}+j_{ik}-j^{sa})}{n_{is}+j_s-j_{ik}-j^{sa}+1}$$

$$\sum_{n_{sa}-j_{ik}} \binom{(n-j^{sa}+1)}{n_{sa}-j_{ik}-j^{sa}+1}$$

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

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

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

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

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

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

$$\left( \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})} \binom{(\quad)}{\quad} \right)$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\begin{aligned}
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \right. \\
 & \left( \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )} \right. \\
 & \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{sa}^{ik} - j_{ik} + 1)}^{(n + j_{sa}^{ik} - s)} \\
 & \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} + n_{is} + k - j_s + 1)}^{(n_{ik} + n_{is} + k - j_s + 1)} \\
 & \sum_{(n_{ik} + j_{sa}^{ik} - k_1)}^{(n_{ik} + j_{sa}^{ik} - k_1)} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{sa} = n - j^{sa} + 1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \right. \\
 & \left. \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )} \right)
 \end{aligned}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1}^{(j_s)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )}$$

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{n_i = n + k_1}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k_1 - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)}$$

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

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

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

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

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

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

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

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

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

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

$$\sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-k_2} \sum_{(n_{sa}=n-j^{sa})}^{(n_{ik}-k_2)}$$

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$(D \geq n < n \wedge l = \mathbb{k} > = 0$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1, j_{sa}^s = j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$

$s \cdot 3 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$

$\mathbb{k}_z: \mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_z^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \right)$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(n_{is} - 2)!}{(j_s - 2)!} \cdot \\
& \left( \frac{(n + j_{sa} - 1 - s)!}{(D + j^{sa} - n - 1)! \cdot (n_{is} - j_{sa} - j^{sa} - s)!} \right) + \\
& \sum_{k=1}^{j_s} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n+j_{sa}^k-s)} \\
& \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^k+1)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=0}^{n-D-j_{sa}} \sum_{l_{ik}=l_{ik}+n-D-j_{sa}^{lk}}^{n-D-j_{sa}} \sum_{j_{ik}=0}^{n+j_{sa}-s} \sum_{n_i=n+k}^{n+j_{sa}-s} \sum_{n_{is}=n+k-j_s+1}^{n_i-j_s+1} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{j_{ik}-k_1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
 \end{aligned}$$

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$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}}^{( )} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik} - l_{k2})!}{(n_i - n - l_{k1} - l_{k2})! \cdot (n_i + j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(n - l_i)!}{(D + j_s - n - l_i)! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > D - n - 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{s_1} - 1 \leq j_{ik} \leq n + j_{sa}^{s_1} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik} \leq j_{sa}^{s_1} + n + j_{sa} - s \wedge$

$l_{k1} - j_{sa}^{ik} + 1 \leq l_{k2} \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$(D - n < n \wedge l = l_{k1} = 0 \wedge$

$j_{sa}^{s_1} \leq j_{sa}^{s_1} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^{s_1} = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^{s_1}, j_{sa}^{ik}, j_{sa}^{i_1}, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + k \wedge$

$k: z = 2, k = k_1 + k_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \right)$$

$$\begin{aligned}
& \sum_{j_{ik}=j_s+l_{ik}-l_s} \binom{(\quad)}{\sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)} \\
& \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_s) \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
& \frac{(n_{ik}+n_{sa}-1)}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
& \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \\
& \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
& \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_s-l_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) + \\
& \left( \sum_{k=1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \right) \\
& \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)} \\
& \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (n_{sa} + j_{sa}^{lk} - j_{sa} - l_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{s=1}^{n-j_{sa}} \sum_{j_s=l_s+n-D}^{n-j_{sa}} \cdot \\
& \sum_{j_s=j_s+l_{ik}-l_s}^{n+j_{sa}-s} \sum_{j^{sa}=l_{sa}+n-D}^{(n+j_{sa}-s)} \cdot \\
& \sum_{n_i=n+k_1}^n \sum_{n_{is}=n+k_1-j_s+1}^{(n_i-j_s+1)} \cdot \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) -$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_{sa}^{ik}=j_{sa}-l_{ik})}$$

$$\sum_{l_{ik}=n_{ik}+l_{ik}-j_s+1} \sum_{(n_{ik}=n_{is}+j_{sa}^{ik}-l_{ik}-l_{ik_1})}$$

$$\frac{(n_i + j_{ik} - j_{sa}^s - j_s - l_{ik_1} - l_{ik_2})!}{(n_i - l_{ik_1} - l_{ik_2})! \cdot (n + l_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + l_{sa} - j_{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > 0 - n + 1 \wedge$$

$$2 \leq j_{sa} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j^{sa}} &= \left( \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \right. \\
 &\quad \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)} \\
 &\quad \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 &\quad \sum_{n_{ik} = n + k_2 - j_{ik}} \sum_{(n_{sa} = n - j^{sa})}^{(n_{is} + j_s - j_{ik} - j_{sa}^{ik} + j_{ik} - j^{sa} - k_2)} \\
 &\quad \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 &\quad \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \cdot \\
 &\quad \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 &\quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\quad \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 &\quad \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 &\quad \left( \sum_{k=1} \sum_{(j_s = l_s + n - D)}^{(j_{ik} - j_{sa}^{ik})} \right. \\
 &\quad \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)} \\
 &\quad \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - l_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\cdot)} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{sa}^{sa}} = \left( \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \right)$$

$$\sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik})}^{(n - j_s + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s = l_s + n - D)}^{(j_{ik} - j_{sa}^{ik})} \right) \\
& \sum_{j_{ik} = j^{sa} + l_{ik} - l_s}^{(n + j_{sa})} \sum_{(j_s = l_{ik} + n - D)}^{(n + j_{sa})} \sum_{(j_{sa} = l_{ik} + n - D)}^{(j_{ik})} \\
& \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{is} + j_s - l_{ik} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{(n_{is} + j_s - l_{ik} - j_s + 1)}^{(n_{is} + j_s - l_{ik} - j_s + 1)} \sum_{(n_{ik} + j_{ik} - j^{sa} - l_{k_2})}^{(n_{ik} + j_{ik} - j^{sa} - l_{k_2})} \\
& \sum_{(n_{ik} = l_{k_2} - j_{ik} + 1)}^{(n_{ik} = l_{k_2} - j_{ik} + 1)} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{sa} = n - j^{sa} + 1)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
& \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}
\end{aligned}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-k_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{i-k_1-k_2})!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - 2)! \cdot (j_s - 2)!}$$

$$\frac{(-l_i)!}{(D + j^{sa} - l_{sa}) \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik} - 1 < j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_s \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - l_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$(D \geq n < n \wedge I = \dots) \Rightarrow \dots \geq 0 \wedge$

$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{ \dots, k_1, j_{sa}^{ik}, k_2, j_s, \dots, j_{sa}^i \}$

$\dots > 3 \wedge \dots = s + k \wedge$

$k_z: z = 2 \wedge k_1 = k_2 = 2 \Rightarrow$

$$f_z^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \right)$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{lk})} \sum_{(j_s=l_s+n-D)} \right) \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{lk}-D-j_{sa}}^{n+j_{sa}^{lk}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - j_{sa}^{ik} + 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \sum_{j_{sa}^{ik}+1}^{(\cdot)} \\
& \sum_{j_{ik}=l_i+n_{ik}-D-s}^{n+j_{sa}^{ik}-l_{sa}^{ik}} (j^{sa}=j_{ik}+l_{sa}-l_{ik}) \cdot \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
\end{aligned}$$

$$l_s \wedge l_{sa} > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{i=1}^{n+j_{sa}} \sum_{j_s=j_{ik}+j_{sa}+1}^{(j_s)} \sum_{l_s=n-D}^{n+j_{sa}} \sum_{j_{ik}+l_{sa}-l_{ik}}^{(j_{ik}+j_{sa}-l_{ik})} \sum_{n_{is}+j_{ik}-\mathbb{k}_1}^{n_{is}+\mathbb{k}} \sum_{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_{ik}=n_{is}-j_{ik}+1}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_s=l_s+n-D}^{(j_s)} \right)$$

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$$\sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})}$$

$$\frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s) \cdot (n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{\binom{()}{j^{sa}=j_{ik}+l_{sa}-l_{ik}}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right)$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j_s - 1)!} + \\
& \left( \sum_{k=1}^{n-s} \sum_{l=1}^{(n-s+1)-j_{sa}+1} \binom{n-s}{k+l} \sum_{i=j_s+j_{sa}^{ik}}^{n-s} \binom{n-s}{i} \sum_{j^{sa}=j_{ik}+l_{sa}-l_{ik}}^{i-j_{sa}+1} \right) \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_s + n - D)} \\
 & \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{n + j_{sa}^{ik} - s} \binom{(\quad)}{(j^{sa} = j_{ik} + l_{sa} - l_{ik})} \\
 & \sum_{n_{ik} = \dots}^n \binom{(n_{is} + 1)}{(n + l_k (n_{is} = n_{is} + 1))} \\
 & \sum_{n_{ik} = \dots}^{n_{is} + j_s - j_{ik} - l_{ik}} \binom{(n_{ik} + j_{ik} - j^{sa} - l_{ik})}{(j^{sa} + 1)} \\
 & \frac{\dots - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_s + n - D - s + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \binom{(\quad)}{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - \dots)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - l_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$(D \geq n < n \wedge l = \mathbb{k} > = 0$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1, j_{sa}^s = j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$

$s: 3 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: \dots = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n-s+1)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \left( \frac{(n_{sa} + j^{sa} - 1 - s)!}{(D + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa} - s)!} \right) + \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\mathbf{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{l_{ik} + n_{sa} - j_{sa}^{ik}} \sum_{j_s = l_s + n - j_{sa}^{ik}}^{j_s = l_s + n - j_{sa}^{ik}} \sum_{j_{ik} = l_{ik} - n - D}^{j_{ik} = l_{ik} - n - D} (j^{sa} = j_{ik} + l_{sa} - l_{ik}) \cdot \\
& \sum_{n_i = n + k}^{n_i = n + k} \sum_{n_{is} = n + k - j_s + 1}^{n_{is} = n + k - j_s + 1} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{ik} = n + k_2 - j_{ik} + 1} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{sa} = n - j^{sa} + 1} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_i)}^{( )}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(n - l_i)!}{(D + j_s - n - l_i)! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n - 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^s \leq j_{sa}^{ik} < n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$(D - n < n \wedge I = k_1 = 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^{ik}, j_{sa}^i, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k; z = 2, k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - n_{is} + n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + l_{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{( )}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + l_{sa} - j_{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_{sa} + n - D)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} \cdot \\
& \sum_{j_{ik} = n_{sa} + l_{ik} - l_{sa}}^{(n_{sa} + l_{ik} - l_{sa})} \sum_{j_{sa} = l_{sa} + n - D}^{(n + j_{sa} - s)} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)} \frac{(n_{ik} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
\end{aligned}$$

$$j_s > n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_{sa}}} = \sum_{k=1}^{\mathbb{k} - j_{sa}^{ik} + 1} \sum_{j_s = n - D}^{n - j_{sa}^{ik} + 1} \sum_{j_{ik} = n - D - j_{sa}}^{n + j_{sa}^{ik} - s} \sum_{j_{ik} = j_{ik} + l_{sa} - l_{ik}}^n \sum_{n_i = \mathbb{k} - j_s + 1}^n \sum_{n_{is} = j_{ik} - \mathbb{k}_1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2} \sum_{n_{ik} = j_{sa} - j_{ik} + 1}^{n_{sa} = n - j_{sa} + 1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_i)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j^{sa}-l_i)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(n - l_i)!}{(D + j_{sa}^{ik} - n - l_i)! \cdot (n + l_{sa} - j_{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{l_s} - 1 \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{l_s} + n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > 0 \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$(D \geq n < n \wedge l = l_{k_1} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^{l_s} - 1 \wedge j_{sa}^{ik} = j_{sa}^{l_s} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{l_s}, j_{sa}^{ik}, l_{k_2}, j_{sa}^{l_s}, \dots, j_{sa}^{l_s}\} \wedge$$

$$s > 3 \wedge s = l_s + l_k \wedge$$

$$l_s = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \binom{(\quad)}{\quad} (j^{sa}=j_{ik}+l_{sa}-l_{ik}) \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{\binom{n_i-1}{j_s-2} \binom{n_i-n_{is}}{n_i-n_{is}+1}}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-2)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \binom{(\quad)}{\quad} (j^{sa}=j_{ik}+l_{sa}-l_{ik}) \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{\binom{()}{j^{sa} = j_{ik} + l_{sa} - l_{ik}}} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{\binom{()}{n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2}} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge l = k) \Rightarrow 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{sa}^{ik} = j_{sa} - 1}^{j_{sa}^{ik} = j_{sa} - 1} \sum_{j_{sa} = j_{sa} - 1}^{j_{sa} = j_{sa} - 1} \binom{()}{(j_s - 2) + l_s - l_{ik}} \\ & \sum_{j_{sa}^{ik} = j_{sa} - 1}^{j_{sa}^{ik} = j_{sa} - 1} \sum_{j_{sa} = j_{sa} - 1}^{j_{sa} = j_{sa} - 1} \binom{(n + j_{sa} - s)}{(j_s - 2) + l_s - l_{ik}} \\ & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\ & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\ & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \end{aligned}$$

$$\sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(\cdot)} \sum_{(n_{ik}=j_{ik}-j^{sa})}^{(\cdot)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik} - l_{k_2})!}{(n_i - n - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^{s_1} - l_{k_2} - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(n + l_s - j^{sa} - l_i)!}{(D + j_s - n - l_{k_2})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > D - n - 1 \wedge$   
 $2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{s_1} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$   
 $j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik} \leq j_{sa}^{s_1} < n + j_{sa} - s \wedge$   
 $l_{k_2} - j_{sa}^{ik} + 1 \leq l_{sa}^{s_1} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$   
 $(D - n < n \wedge l_s = 0 \wedge$   
 $n \leq j_{sa}^{s_1} - 1 \wedge j_{sa}^{ik} = j_s^{s_1} - 1 \wedge j_{sa}^{s_1} = j_{sa}^{ik} - 1 \wedge$   
 $s: \{j_{sa}^{s_1}, l_{k_1}, j_{sa}^{ik}, j_{sa}^{s_1}, j_{sa}^{s_1}\} \wedge$   
 $s > 3 \wedge s = s + l_k \wedge$   
 $l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$

$$f_z^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$



$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_s+1)!(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}+1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} \sum_{j_s=1}^{j_s} j_s^{sa} &= \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \\ &\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+n+j_{sa}-D-1)}^{(n+j_{sa}-s)} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \end{aligned}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_i)!} \cdot \sum_{k=1}^{(j_s - j_s)} \sum_{l_s - l_{ik}}^{(l_s - l_{ik})} \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(j_s - j_s)} \sum_{l_i + n + j_{sa} - D - s}^{(l_i + n + j_{sa} - D - s)} \sum_{n + \mathbb{k}}^{(n + \mathbb{k})} \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_{is} = n + \mathbb{k} - j_s + 1)} \sum_{n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_{is} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \frac{(n_i + j_{sa}^s + j_{sa}^s - j_s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - 1 \wedge$$

$$2 \leq j_s \leq j_{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_z \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{(\cdot)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n - j_s + 1)}$$

$$\sum_{n_{is} + j_s - j_{ik}}^{(n_{ik} + j_{ik} - j^{sa})} \sum_{(n_{is} = n - j^{sa} + 1)}^{(n - j^{sa} + 1)}$$

$$\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik})!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{(\cdot)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s > l_s \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = (\mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{\binom{(\cdot)}{j_s=j_{ik}+l_s-l_{ik}}}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{\binom{(\cdot)}{j^{sa}=j_{ik}+l_{sa}-l_{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(n_i-j_s+1)}{n_{is}=n+\mathbb{k}-j_s+1}}$$

$$\sum_{n_{is}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}{n_{sa}=n-j^{sa}+1}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_s - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_s - s)!} \cdot \sum_{j_{ik}=l_i+1}^{n+j_{sa}^{ik}-D-s} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{n+j_{sa}^{ik}-D-s} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)} \cdot \frac{(n_{is} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D > n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge I = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(j_s)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )}$$

$$\sum_{j_{ik} = l_s + n + j_{sa}^{ik}}^{n + j_{sa}^{ik} - s} \sum_{(j_{sa} = j_{ik} + l_{sa})}^{( )}$$

$$\sum_{n_i = n + k}^n \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n - j_{ik} + 1}^{n + j_s - j_{ik}} \sum_{(n_{ik} + j_{ik} - j_{sa} - k_2)}^{(n_{ik} + j_{ik} - j_{sa} - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )}$$

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$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k_2})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(n - l_i)!}{(D + j_{sa}^s - l_{sa})! \cdot (n + l_{sa} - j_{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik} \leq j_{sa}^{ik} + j_{sa} - j_{sa}^{ik} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n - j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$

$(D \geq n < n \wedge l_s > D - n + 1 \wedge$

$j_{sa}^{ik} \leq j_{sa}^i - 1, j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i, j_{sa}^i\}$

$> 3 \wedge s = s + l_k \wedge$

$l_{k_z}: z = 2 \wedge l_{k_z} = l_{k_2} \Rightarrow$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$



$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}} = \sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}^{(n-s+1)}$$

$$\sum_{j_{ik} = j_s + l_{ik} - l_s}^{( )} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{( )}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-s}^{(n-s+1)} \sum_{(j_{ik}+l_{ik}-l_{ik})}^{(n-s+1)}$$

$$\sum_{n_i=n+l_k}^{(n-s+1)} \sum_{(n+l_k-j_s+1)}^{(n-s+1)}$$

$$\sum_{n_{ik}=n_{is}} \sum_{(j_{ik}-k_1)} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i + j_{sa} + j_{sa}^s - j_s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i + j_{sa} - k_1 - k_2)! \cdot (n + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s = D - n - 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = j_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge I = k \geq 0 \wedge$$

$$j_s < j_s^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_s+n-D)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n-s+1)} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_s)}^{(n-s+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \sum_{(n_{sa}=n-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n-s+1)} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(n-s+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{(n-s+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(n-s+1)}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa})!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > = 2 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = \mathbb{k}_1 \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j^{sa}=l_{sa}+n-D}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(j_i + j_{sa} - j^{sa} - j_{sa})!}{(j_i + l_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} - j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa} + 1)}^{( )} \\
 & \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_i + n + j_{sa} - D - s)}^{(n + j_{sa} - s)} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{( )} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) =$$

$$f_z \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{l_{sa} + n + j_{sa}^{ik} - D - j_{sa} - 1} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (n_{sa} + j_{sa}^{lk} - j_{sa} - l_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{j_s=1}^{n+1} \sum_{j_s=j_{ik}+l_s-l_{ik}}^{n+1} \\
& \sum_{j_{ik}=j_{sa}-D-j_{sa}}^{n+j_{sa}^{ik}} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+k_1}^n \sum_{(n_i=n+k_1-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{n + j_{sa}^{ik} - s} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{k_1}^{(n_i - j_s + 1)} \sum_{k_2}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{ik} - k_1}^{(n_{is} + j_{sa}^{ik} - k_1)} \sum_{(n_{sa} = j_{ik} + j_{ik} - j_{sa} - k_2)}$$

$$\frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - k_1 - k_2)! \cdot (n + k_1 + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + l_{sa} - j_{sa} - l_i)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^s \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

$$l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1 \quad (n+j_{sa}-s)$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-j_{sa}-1}^{( )} (j^{sa}=l_{sa}+j_{sa}^{ik}-1)$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{(n_i+j_s-j_{ik})}^{(n_i+j_s-j_{ik})} \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\sum_{n_{ik}=n+j_{sa}^{ik}-j_{ik}+1}^{( )} \sum_{(n_{sa}=n-j^{sa}+1)}^{( )}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \\
 & \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$((D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \vee$

$(D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$

$(D \geq n < n \wedge I = 0 \wedge$

$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{l_{ik}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i, \dots, j_{sa}^i\}$

$> 3 \wedge l_{k_2} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_z - 1 \wedge \mathbb{k}_z = 2 \Rightarrow$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)}$$

$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - l_{sa} - j_{sa} - 1)! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\sum_{k=1}^n \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)}$$

$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{sa} - l_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k_1=0}^{j_s-1} \sum_{k_2=0}^{j_s-1-k_1} \sum_{j_s+l_{sa}^{ik}-1}^{(j_s-1-k_1-k_2)} \binom{()}{j^{sa}=j_{ik}+l_{sa}-l_{ik}} \\
& \sum_{n_i=n+k_1}^n \sum_{(n_{is}=n+k_1-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{( )} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz = \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{(n+j_{sa}-s)} \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n)} \sum_{(n_i=n+\mathbb{k})}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(n_i - n_{is} + 1)} \binom{(n_i - n_{is} + 1)}{k} \binom{(n_i - n_{is} + 1)}{n_i - n_{is} - k} \binom{(n_i - n_{is} + 1)}{j_{sa} + 1} \\
& \sum_{i=j_s + l_{ik} - l_s}^{(n_i - n_{is} + 1)} \binom{(n_i - n_{is} + 1)}{i} \binom{(n_i - n_{is} + 1)}{j_{ik} + j_{sa} - j_{sa}^{ik}} \\
& \sum_{i=n_{is} + k}^{(n_i - n_{is} + 1)} \binom{(n_i - n_{is} + 1)}{i} \binom{(n_i - n_{is} + 1)}{n_{is} + k} \binom{(n_i - n_{is} + 1)}{n_{is} + k - j_s + 1} \\
& \sum_{i=n_{ik} - j_{ik} - k_1}^{(n_i - n_{is} + 1)} \binom{(n_i - n_{is} + 1)}{i} \binom{(n_i - n_{is} + 1)}{n_{ik} + j_{ik} - j^{sa} - k_2} \\
& \sum_{i=n_{ik} - j_{ik} + 1}^{(n_{sa} - n - j^{sa} + 1)} \binom{(n_i - n_{is} + 1)}{i} \binom{(n_{sa} - n - j^{sa} + 1)}{i} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$



$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_i)}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(n - l_i)!}{(D + j_s - n - l_i)! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} - n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} - n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$n \wedge I = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}^{(j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}} \sum_{(j^{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik})}^{(n + j_{sa} - s)}$$

$$\sum_{n_i = n + j_s + 1}^n \sum_{(n_i + j_s + 1)}^{(n + j_s + 1)}$$

$$\sum_{(j_s - 2)}^{(n_i + j_s - j_{ik})} \sum_{(n_{ik} + j_{ik} - j^{sa})}^{(n_{ik} + j_{ik} - j^{sa})}$$

$$\frac{(n_i - n_{is})}{(j_s - 2) \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1) \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

$$\sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}} \sum_{(j^{sa} = l_i + n + j_{sa} - D - s)}^{(n + j_{sa} - s)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - l_{sa} - j^{sa} - l_{sa})!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$(D \geq n < n \wedge l_s = 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s - \mathbb{k}_1, j_{sa}^{ik}, j_{sa}^i, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}: z = 2, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - n_{is} + j_{ik} - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{ik} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_{ik} - l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

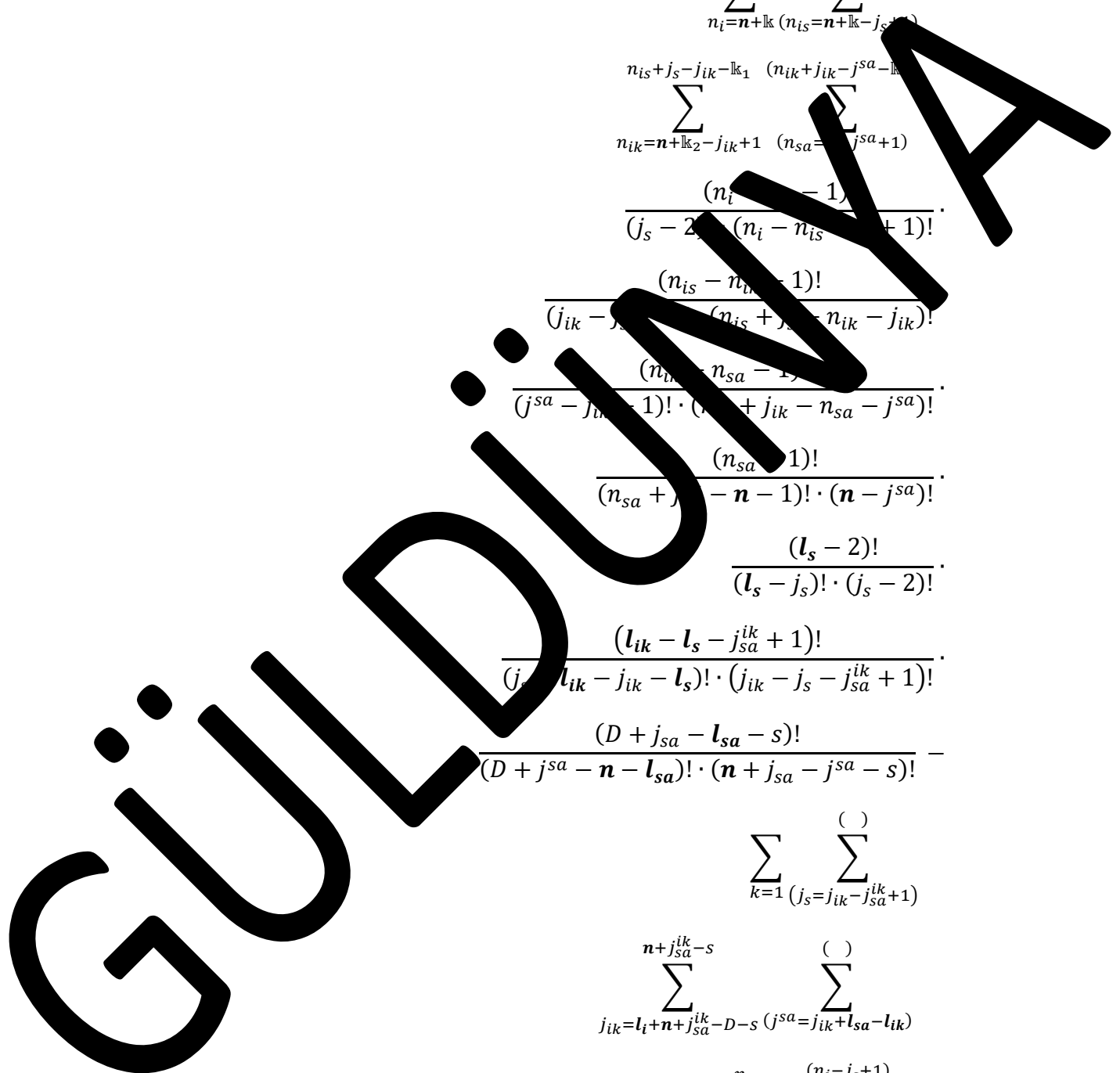
$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{( )}$$



$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > = 2 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{ik} + n - D - j_{sa}^{ik})} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{( )}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - l_{sa})!} \cdot \sum_{k=0}^{(n-s+1)} \sum_{l=0}^{(D-s+1)} \sum_{j_{ik} + j_{sa}^{ik} - 1}^{(n)} \sum_{j^{sa} = j_{ik} + l_{sa} - l_{ik}}^{(n_i - j_s + 1)} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(n_i - j_s + 1)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$j_s > n - 1 \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{j_s=j_{ik}+1}^{( )} \sum_{j_{sa}=j_{sa}^{ik}+1}^{( )} \sum_{j_{sa}^{ik}=j_{sa}-1}^{j_{sa}^{ik}-j_{sa}-(l_s-1)} \sum_{j_{ik}=j_{sa}}^{n-l_s} \sum_{j_{sa}=j_{sa}+1}^{n-l_s} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n-l_s} \sum_{n_{ik}=n_{is}-j_{ik}+1}^{n_{is}+j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$



$$\begin{aligned}
 & \sum_{k=1}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_s+j_{sa}^{ik})}^{\binom{(l_{sa})}{}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{\binom{(n_i-j_s+1)}{}} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j_{sa}^{ik}-l_{k_2})}^{\binom{(n_{ik}-j_{ik}-l_{k_2})}{}} \\
 & \frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} -
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=1}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+j_{sa}-j_{sa}}^{l_s+j_{sa}-1} \sum_{(j^{sa}=j_{sa}+1)}^{\binom{(l_s+j_{sa}-1)}{}}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l_s - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n \wedge$

$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i = j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1$

$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^i, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(j_{ik} + j_{sa} - j^{sa} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{( )} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} \delta_{j_s, j_{ik}, j^{sa}} &= \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\ &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \end{aligned}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=0}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_s + j_{sa}^{ik} - 1} \sum_{(j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{(j_s+1)}$$

$$\sum_{n_{is} + k} (n_{is} = n + k - j_s + 1)$$

$$\sum_{(n_{is} + j_s - j_{sa} - k_1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j_{sa} - k_2)}$$

$$\frac{(n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$n \geq n < n \wedge l_s > 1 \wedge l_s \leq D + j_{sa} - n \wedge$$

$$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge I = k \geq 0 \wedge$$

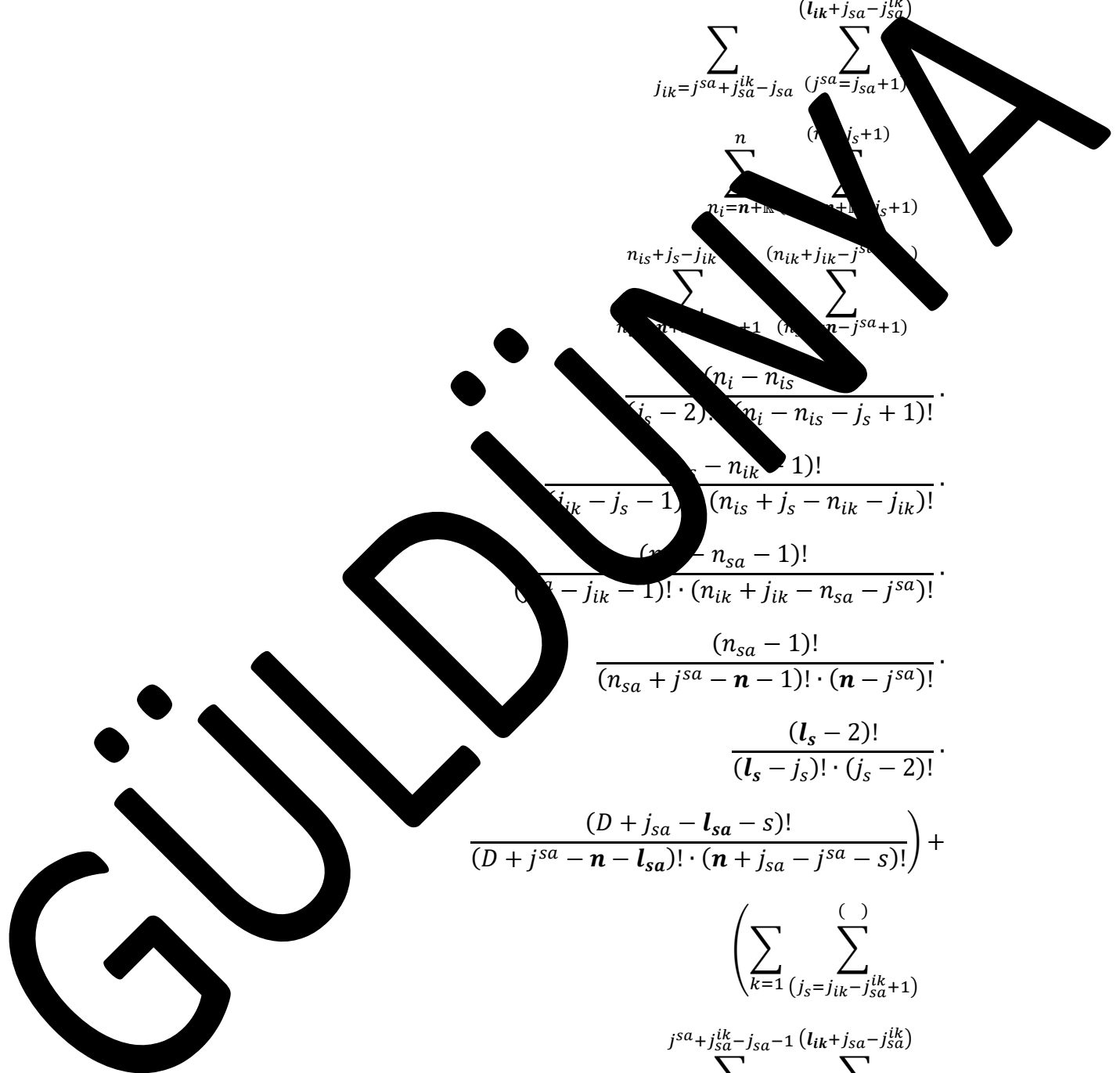
$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=j_{sa}+1)}^{(n-j_s+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_{ik}+j_{ik}-j^{sa})} \frac{(n_i - n_{is})}{(n_{is} - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \frac{(n_{is} + j_s - n_{ik} - j_{ik})}{(n_{is} + j_s - n_{ik} - j_{ik})!} \frac{(n_i - n_{sa} - 1)!}{(n_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=j_{sa}+2)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \right)$$



$$\begin{aligned}
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(j_{ik} + j_{sa} - j^{sa} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} - j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{l_{ik}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(j_s)} \\
 & \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik}} \sum_{(j^{sa} = l_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(l_{sa})} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - j_{sa}^{ik} - j_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \sum_{j_{ik} = n_{sa} + j_{sa}^{ik} - j_{sa}}^{(j_{sa}^{ik} + 1)} \sum_{j_{sa} = j_{sa}^{ik}}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{n_i = n + \mathbb{k}_1}^n \sum_{(n_{is} = n + \mathbb{k}_1 - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(j_{sa}^{ik} + 1)} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$l_s > 1 \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$



$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{i=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \right) \cdot \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) + \left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \right)$$

**GÜLDÜMNYA**

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j_{sa}=j_{sa}+2)}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_1})} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_{sa}-1) \cdot (n_{is}+j_{sa}-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}+1)! \cdot (n_{sa}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{+ l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\
 & \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=l_s+j_{sa})}^{(l_{sa})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(j_{ik} + j_{sa} - j^{sa} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - j_{sa})! \cdot (j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \left. \frac{(D + j_{sa} - j_{sa} - s)!}{(D + j_{sa} - j_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=j_{sa}+1)}^{(\ )} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\ )} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\ )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

GÜLDÜZMÜŞA

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{sa}} = \left( \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \right)$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{ik} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{l_{ik}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{n_{ik}+j_{sa}^{ik}-k_1}^{(n_i-j_s+1)} \sum_{(n_{ik}+j_{sa}^{ik}-k_1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}+k_2-j_{ik}+1}^{(n_{ik}+j_{sa}^{ik}-k_1)} \sum_{(n_{ik}+k_2-j_{ik}+1)}^{(n_{ik}+j_{sa}^{ik}-k_1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{l_{ik}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)}
 \end{aligned}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - 1)!}{(D + j^{sa} + s - n - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik}^{ik} \leq j_{ik} \leq j_s + 1 + j_{sa}^{ik} - j_{sa}^{ik} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa}^{ik} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^{ik} > l_{ik} \wedge$

$(D \geq n < n \wedge l_s = 1) \Rightarrow 0 \wedge$

$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{ \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^{ik}, \dots, j_{sa}^i \}$

$> 3 \wedge l_s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = (j_{sa}^{ik} - 1) \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \left( \frac{(D + j_{sa} - j^{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \right) \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa})} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - j_{sa}^{ik} - j_{sa} - j_{sa}^{ik})!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j_{sa}^{ik} - j_{sa} - j_{sa}^{ik})!} \cdot \\
& \sum_{j_{sa}^{ik}+1}^{l_s + j_{sa}^{ik} - 1} \binom{()}{j_{sa}^{ik}+1} \cdot \\
& \sum_{n_i = n + \mathbb{k}_1}^n \sum_{(n_{is} = n + \mathbb{k}_1 - j_s + 1)}^{(n_i - j_s + 1)} \cdot \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{()}. \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$



$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1}^{\mathbb{k}-j_{sa}^{ik}+1} \sum_{j_s=2}^{\mathbb{k}-j_{sa}^{ik}+1} \sum_{j_{ik}=1}^{j_s-1} \sum_{j_{sa}=1}^{j_{ik}-1} \sum_{n_i=1}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_i+j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \left( \sum_{k=1}^{\mathbb{k}-j_{sa}^{ik}+1} \sum_{j_s=2}^{\mathbb{k}-j_{sa}^{ik}+1} \right)$$

GÜLDÜNYA

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(l_{sa})}^{(l_{sa})} (j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1) \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_{is}=n+l_k-j_s+1) \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}+1)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_1})} \\
 & \frac{(n_i-1)}{(j_s-2)(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_{sa}^{ik}-1)(n_{is}+j_{sa}^{ik}-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)}{(j_{sa}^{ik}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}^{ik})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}^{ik}-n-1)! \cdot (n-j_{sa}^{ik})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(D+l_{sa}-j_{sa}^{ik}-l_{ik})! \cdot (j_{sa}^{ik}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}^{ik}-s)!} \right) - \\
 & \sum_{k=1} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_{sa}^{ik})}^{(j_{sa}^{ik})} (j_{sa}^{ik}=j_{ik}+j_{sa}-j_{sa}^{ik}) \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_{is}=n+l_k-j_s+1) \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2})}^{(j_{sa}^{ik})}
 \end{aligned}$$

GÜLDENWA

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa})!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(l_s)} \sum_{j_s=2}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left( \sum_{k=1}^{(l_s)} \binom{l_s}{j_s - k} \right)$$

$$\sum_{j_{ik}=j_s+1}^{(l_{sa})} \sum_{j_{sa}=j_{ik}+j_s}^{(l_{sa}+1)}$$

$$\sum_{n_i=n+k}^{(n_i-j_s+1)} \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_i+1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

GÜLDÜMNA

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{( )}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=l_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{( )} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i - j_{ik} + j_{sa}^s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - 1)!}{(n + j_{sa} - j^{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s = n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j_{ik} \leq n + j_{sa} - s \wedge$$

$$l_{k_1} - j_{sa}^{ik} + 1 = l_{k_1} \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n \wedge I = l_{k_1} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$j_{sa} > 3 \wedge s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \right)$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \binom{l_{ik}+j_{sa}-j_{sa}^{ik}}{j^{sa}=l_{sa}+n-D} \sum_{n_i=n+k}^n \binom{n_i-j_s+1}{n_{is}=n+k-j_s} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \binom{n_{ik}+j_{ik}-j^{sa}-k_1}{n_{sa}=n-j^{sa}+1} \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_s-n_{ik}-j_{ik})!} \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{is}+j_{ik}-n_{sa}-j^{sa})!} \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)!(n-j^{sa})!} \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot$$

$$\left( \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_s-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) +$$

$$\left( \sum_{k=1}^{\binom{)}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{)}{}} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \binom{l_{ik}+j_{sa}-j_{sa}^{ik}}{j^{sa}=l_{sa}+n-D}$$

$$\sum_{n_i=n+k}^n \binom{n_i-j_s+1}{n_{is}=n+k-j_s+1}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \binom{n_{ik}+j_{ik}-j^{sa}-k_2}{n_{sa}=n-j^{sa}+1}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_s - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{l_{ik}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(n)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{j_s=j_{ik}+1}^{( )} \sum_{j_{sa}^{ik}+1}^{( )}$$

$$(l_{ik} + j_{sa})$$

$$\sum_{j_{ik}+1}^{( )} \sum_{j_{sa}^{ik}+1}^{( )} (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})$$

$$\sum_{n_{is}=n+l_{ik}-j_s+1}^n$$

$$\sum_{n_{is}=n+l_{ik}-j_s+1}^n$$

$$\sum_{n_{ik}+j_s-1+l_{k_1}}^{( )} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_{ik} - j_{sa} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - 1 \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = l_{k_1} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$



$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_{sa}=l_{sa}-1)}^{(j_{sa}=l_{sa}-1)} \sum_{(j_{sa}=l_{sa}-n-D)}^{(j_{sa}=l_{sa}-n-D)} \sum_{(n_i-j_s)}^{(n_i-j_s)} \sum_{(n_i=n+k-j_s+1)}^{(n_i=n+k-j_s+1)} \sum_{(n_{is}=j_{ik}-k_1)}^{(n_{is}=j_{ik}-k_1)} \sum_{(n_{sa}=n-j_{sa}^{sa}-k_2)}^{(n_{sa}=n-j_{sa}^{sa}-k_2)} \sum_{(n_{sa}=n-j_{sa}^{sa}+1)}^{(n_{sa}=n-j_{sa}^{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa}^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa}^{sa} - s)!} \right) + \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_{sa}=l_{sa}+n-D)}^{(j_{sa}=l_{sa}+n-D)} \sum_{(j_{sa}=l_{sa}-1)}^{(j_{sa}=l_{sa}-1)} \sum_{(n_i-j_s)}^{(n_i-j_s)} \sum_{(n_i=n+k-j_s+1)}^{(n_i=n+k-j_s+1)} \sum_{(n_{is}=j_{ik}-k_1)}^{(n_{is}=j_{ik}-k_1)} \sum_{(n_{sa}=n-j_{sa}^{sa}-k_2)}^{(n_{sa}=n-j_{sa}^{sa}-k_2)} \sum_{(n_{sa}=n-j_{sa}^{sa}+1)}^{(n_{sa}=n-j_{sa}^{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa}^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa}^{sa} - s)!} \right)$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - l_{sa} - j_{sa} - l_{ik} - j_{sa} - 1)!} \cdot \frac{(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}{(D + j_{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{\binom{()}{}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j_s - j_{ik} - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (n_{sa} + j_{sa}^{ik} - j_{sa} - j_{sa}^{ik})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_i - j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{j_{ik}=1}^{j_{ik}-j_{sa}^{ik}+1} \sum_{j_{sa}^{ik}=j_{sa}-j_{sa}^{ik}+1}^{j_{sa}-j_{sa}^{ik}+1} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{l_s+j_{sa}-1} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S j_s j_{ik} j_{sa} = \left( \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^n \sum_{j_{ik}=l_{sa}+j_{sa}^{ik}-D}^n \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^n \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\begin{aligned}
 & \left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \right) \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1}^{(n_i-j_s+1)} \sum_{(n_{sa}=n-j_{sa}^{ik}+k_2)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}}^{(n_i-j_s+1)} \sum_{(n_{sa}=n-j_{sa}^{ik}+k_2)}^{(n_i-j_s+1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - j_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j_{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{i_k}=n+\mathbb{k}_2-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-\mathbb{k}_1} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!}$$

$$\frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!}$$

$$\frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} - n_{s_a} - j^{s_a})!}$$

$$\frac{(n_{s_a} + j^{s_a} - n - 1)!}{(l_s - 2)! \cdot (l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{s_a} + j_{s_a}^{i_k} - l_{i_k} - j_{s_a})!}{(j_{i_k} - l_{s_a} - j_{s_a}^{i_k} - l_{i_k} - j_{s_a})! \cdot (j^{s_a} + j_{s_a}^{i_k} - j_{i_k} - j_{s_a})!}$$

$$\left( \frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j_{s_a} - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!} \right) -$$

$$\sum_{k=1} \sum_{(j_s=j_{i_k}-j_{s_a}^{i_k}+1)}^{()}$$

$$\sum_{j_{i_k}=l_i+n+j_{s_a}^{i_k}-D-s}^{l_{i_k}} \sum_{(j^{s_a}=j_{i_k}+j_{s_a}-j_{s_a}^{i_k})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{i_k}=n_{i_s}+j_s-j_{i_k}-\mathbb{k}_1} \sum_{(n_{s_a}=n_{i_k}+j_{i_k}-j^{s_a}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k})!}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

$$\sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$\sum_{k=1}^{l_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_{sa}^{ik}}$   
 $\sum_{j_{ik}=n+j_{sa}^{ik}-l_{sa}^{ik}}^{l_s} \sum_{j_{sa}^{ik}=j_{ik}+j_{sa}^{ik}-j_{sa}^{ik+1}}^{j_{sa}^{ik}-s}$   
 $\sum_{n_i=n+k}^{n_i-j_s+1} \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)}$   
 $\sum_{n_{ik}=n+k_2-j_{ik}+1}^{j_{ik}-k_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)}$   
 $\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$   
 $\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$   
 $\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$   
 $\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$   
 $\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$   
 $\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$   
 $\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$

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$$\begin{aligned}
 & \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{j^{sa}=l_{sa}+n}^{\binom{()}{n+j_{sa}-s}} \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{\binom{()}{n_i-j_s+1}} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}^{k_1}} \sum_{n_{sa}=n-j^{sa}+k_2}^{\binom{()}{n_{ik}-j_{ik}^{k_1}-k_2}} \\
 & \frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-j_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) - \\
 & \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{\binom{()}{}}
 \end{aligned}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_j)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$D + j_{sa} - n < l_{sa} \leq D + j_{sa} - n - 1$

$(D \geq n < n \wedge l = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1$

$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^s, \mathbb{k}_2, j_{sa}^s, \dots, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-j_{sa}^{ik}+1)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(n_i - 2)!}{(j_s - 2)!} \cdot \\
& \left( \frac{(n_i + j_{sa} - 1 - s)!}{(D + j^{sa} - n - 1)! \cdot (n_{sa} - j^{sa} - s)!} \right) + \\
& \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n+j_{sa}-s)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n_i-j_s+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n_{is}=n+k-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{i=1}^{(l_{sa} + n_{sa} - j_{sa})} \sum_{(j_s=2)}^{(n + j_{sa} - s)} \\
& \sum_{j_{ik} + j_{sa}^{ik} - 1}^{(n - D)} \sum_{n_i = n + k_1}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k_1 - j_s + 1)} \\
& \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{( )} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_{ik} + j_{ik} + j_{sa}^{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - 1)!}{(D - 1 + s - l_i - j_s)! \cdot (n + j_{sa} - j_{sa}^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{sa} - 1 \leq j_{ik} \leq n + j_{sa}^{sa} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{sa} - j_{sa}^{ik} \leq j_{sa}^{sa} \wedge n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_{sa} + j_{sa}^{ik} - j_{sa}^{sa} \wedge l_{ik} \wedge$$

$$D + j_{sa}^{sa} - n < l_{sa} \leq l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{sa} - 1 \wedge j_{sa}^{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$j_{sa} \leq 3 \wedge j_{sa} - s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j_{sa}}} = \left( \sum_{k=1}^{( )} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \right)$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{\substack{(\cdot) \\ j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}} \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{ik}+j_{ik}-j^{sa}-k_2} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1} \sum_{n_{sa}=n-j^{sa}+1} \\
 & \frac{(n_i-1)}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)!(n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_s-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} \right) + \\
 & \left( \sum_{k=1}^{(l_s)} \sum_{j_s=l_{sa}+n-D-j_{sa}+1}^{(l_s)} \right. \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{ik}+j_{ik}-j^{sa}-k_2} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1} \sum_{n_{sa}=n-j^{sa}+1} \\
 & \left. \frac{(n_i-n_{is}-1)!}{(j_s-2)!(n_i-n_{is}-j_s+1)!} \right)
 \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (l_{sa} + j_{sa}^{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{n-j^{sa}} \sum_{(j_s=2)}^{n-j_s} \\
& \sum_{k=j_s+j_{sa}^{ik}-1}^{n} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{sa}-1}^{j_{ik}=j_s+l_{sa}-1} \sum_{(j_{sa}=j_{ik}-l_{sa})}^{(j_{sa}=j_{ik}-l_{sa})}$$

$$(n_i - j_s + 1)$$

$$\sum_{\mathbb{k}_1} \sum_{\mathbb{k}_2} (n_i - j_s + 1 + \mathbb{k}_1 + \mathbb{k}_2 - j_s + 1)$$

$$n_{ik}=n_{is}+j_{sa}-\mathbb{k}_1 \quad (n_{sa}=j_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)$$

$$\frac{(n_i + j_{ik} - j_{sa} - j_s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{sa} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} - s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \geq 1 \wedge l_s \leq n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa} - n \wedge l_i \leq D + s - n \wedge$$

$$(j_{sa}^{ik} - n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$



$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik}-j^{sa}+1)} \sum_{(j_s=2)}^{(j_{ik}-j^{sa}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+1}^n \sum_{(n_i+j_s+1)}^{(n+j_s+1)}$$

$$\sum_{(n_{is}+j_s-j_{ik})}^{(n_{ik}+j_{ik}-j^{sa})}$$

$$\sum_{(n_{is}+1)}^{(n_{is}+1)} \sum_{(n-j^{sa}+1)}^{(n-j^{sa}+1)}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j^{sa}+j^{ik}-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{i_k}=n+\mathbb{k}_2-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-\mathbb{k}_1} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!}$$

$$\frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!}$$

$$\frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} - n_{s_a} - j^{s_a})!}$$

$$\frac{(n_{s_a} + j^{s_a} - n - 1)!}{(l_s - 2)! \cdot (l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{i_k} - j_{s_a}^{i_k} + 1)!}{(l_{i_k} + l_{i_s} - j_{i_k} - j_{s_a}^{i_k})! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!}$$

$$\frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j_{i_k} - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!}$$

$$\sum_{k=1}^{\binom{)}{}} \sum_{(j_s=j_{i_k}-j_{s_a}^{i_k}+1)}^{\binom{)}{}}$$

$$\sum_{j_{i_k}=j^{s_a}+j_{s_a}^{i_k}-j_{s_a}}^{(l_s+j_{s_a}-1)} \sum_{(j^{s_a}=j_{s_a}+1)}^{\binom{)}{}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{i_k}=n_{i_s}+j_s-j_{i_k}-\mathbb{k}_1} \sum_{(n_{s_a}=n_{i_k}+j_{i_k}-j^{s_a}-\mathbb{k}_2)}^{\binom{)}{}}$$

$$\frac{(n_i + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k})!}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa}=j_{ik} + j_{sa} - j_{sa}^{ik})} ( )$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} + \\
& \sum_{j_s=2}^{(l_s)} \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{sa}+j_s-j_{sa}^{ik}} \binom{(\cdot)}{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{sa} - j_{sa}^{ik})}$$

$$(n_i + 1)$$

$$n + k (n_{is} = n + k - 1)$$

$$(\ )$$

$$= n_{is} + j_s - k_1 (n_{sa} = j_s - k_2)$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - s - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$(D - l_i)!$$

$$(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge l_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j_s \leq n + j_{sa} \wedge$$

$$l_s - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} = j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_{ik} \leq D + s - n \wedge$$

$$(D \geq n - 1 \wedge I = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+j_{sa}^{ik}-k_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = j_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = (\mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{\binom{()}{j^{sa}=j_{sa}+1}} \sum_{n_i=n+\mathbb{k}} \sum_{\binom{()}{n_{is}=n+\mathbb{k}-j_s+1}} \sum_{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1} \sum_{\binom{()}{n_{sa}=n-j^{sa}+1}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right)$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa})!} \right) + \\
 & \sum_{j_{ik}=2}^{(j_{ik}-j_{sa})} \sum_{(j_s=2)}^{(l_s+j_{sa}-1)} \\
 & \sum_{j_{sa}=j_{sa}+2}^{j_{sa}+j_{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+2)}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+k_1}^n \sum_{(n_{is}=n+k_1-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \frac{(l_{sa})}{(j_{ik}=j_{sa}+j_{sa}^{ik}-j_s-j_{sa}-j_{sa}^{ik}+j_{sa})} \\
 & \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n+l_k)}^{(n+l_k)} \sum_{(n+l_k-j_s+1)}^{(n+l_k-j_s+1)} \\
 & \sum_{(n_{is}+j_{sa}-l_{k_1})}^{(n_{is}+j_{sa}-l_{k_1})} \sum_{(n_{ik})}^{(n_{ik})} \sum_{(n_{sa}-l_{k_2})}^{(n_{sa}-l_{k_2})} \\
 & \sum_{(n_{ik}+l_{k_2}-j_{ik})}^{(n_{ik}+l_{k_2}-j_{ik})} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) - \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}
 \end{aligned}$$

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$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa} - \mathbb{k}_1)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa} - \mathbb{k}_2)!}$$

$$\frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - \dots)!}{(D + j^{sa} + s - n - \dots - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - \dots$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa} - j_s \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - \dots = l_{ik} \wedge$

$(D \geq \dots < n \wedge I = \dots) \Rightarrow 0 \wedge$

$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{ \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i \}$

$> 3 \wedge \dots - s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_z - 2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} + \\
& \sum_{j_s=2}^{(l_s)} \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{sa}+j_s-j_{sa}^{ik}} \binom{(\cdot)}{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{sa}-j_{sa}^{ik})}$$

$$(n_i + 1)$$

$$+ \mathbb{k} (n_{is} = n + \mathbb{k} - 1)$$

$$( )$$

$$= n_{is} + j_s - j_{sa} - \mathbb{k}_1 (n_{sa} = j_{sa} - \mathbb{k}_2)$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$(D - l_i)!$$

$$(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!$$

$$D \geq n < n \wedge l_s > l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge l_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - j_s \wedge$$

$$l_s - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n - \mathbb{k}_1 - \mathbb{k}_2 = 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}+1)} \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_{sa}-n_{ik}-j_{ik})!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\left( \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) +$$

$$\left( \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}+1)} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!}$$

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$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j_s - j_{ik} - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - j^{sa} + 1)!} \cdot \\
& \frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_s - j_s - j_{ik} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_s + j_{sa}^{ik} - 1}^{(j_s + j_{sa}^{ik} - 1)} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}) \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(j_s - 1)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{j_s = j_{ik} - j_{sa}^{ik} + 1}^{j_s - 1} \sum_{j_{sa} = j_{sa} - 1}^{j_{sa} - 1} \sum_{j_{ik} = j_{sa} + j_s - j_{sa}}^{n} \sum_{j_{sa} = l_{sa} + n - D}^{j_{sa} - 1} \sum_{n_i = n + \mathbb{k}}^n \sum_{n_{is} = n + \mathbb{k} - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{n_{sa} = n - j_{sa} + 1}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$



$$\begin{aligned}
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)} \right) \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{sa}+n)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_{is}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-l_{k_1}}^{(n_{is}-j_s+1)} \sum_{(n_{sa}=n-j^{sa}+l_{k_2})} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{(n_{is}-1)!} \sum_{(n_{sa}=n-j^{sa}+1)} \\
 & \frac{(j_s-1)! \cdot (n_i-j_s+1)!}{(j_s-1)! \cdot (n_i-j_s+1)!} \cdot \\
 & \frac{(n_{is}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-1)! \cdot (n_{sa}-1)!}{(j^{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_{sa})}
 \end{aligned}$$

GÜLDÜZYAZ

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + j_{sa}^{ik} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

GÜLDÜSÜMÜR

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S j_s, j_{ik}, j^{sa} = \left( \sum_{k=1}^{l_s} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \right)$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - s)!}$$

$$\left( \sum_{k=1}^j \binom{j - j_{sa}^{ik}}{j_s - j_{sa}^{ik}} \right)$$

$$\sum_{j_{ik} = n + j_{sa}^{ik} - j_{sa}^{ik}}^{n - j_{sa}^{ik}} \binom{n - j_{sa}^{ik}}{j_{sa}^{ik} - j_{sa}^{ik}} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

GÜLDÜMNA

$$\begin{aligned}
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik} (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n+j_{sa}^{ik}-s} \sum_{(n_{is}=n_{is}+1)}^{(n_{is}+1)} \\
 & \sum_{(n_{ik}=n_{ik}+1)}^{(n_{ik}+1)} \sum_{(n_{ik}+j_{ik}-j^{sa}-l_{sa})}^{(n_{ik}+j_{ik}-j^{sa}-l_{sa})} \\
 & \frac{(n_{is}+j_s-j_{ik}-l_{sa})! \cdot (n_{ik}+j_{ik}-j^{sa}-l_{sa})!}{(n_{is}-2)! \cdot (n_{is}-n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(n_{is}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(n_{ik}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_s)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l_s - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + j_{sa}^{ik} + j_{sa} - n$

$(D \geq n < n \wedge l_s = \mathbb{k} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i = j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - j_{sa}$

$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^i, j_{sa}, j_{sa}^{ik}, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \left( \frac{(n_i + j_{sa} - 1 - s)!}{(D + j^{sa} - \mathbf{n} - 1)! \cdot (n_{sa} - j^{sa} - s)!} \right) + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k_1=1}^{(l_{sa} + n_{is} - j_{sa})} \sum_{(j_s=2)}^{(j_s)} \frac{(\quad)}{j_{ik} + n_{is} + j_{sa}^{ik} - j_{sa} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \\
& \sum_{n_i=n+k_1}^{(n_i - j_s + 1)} \sum_{(n_{is}=n+k_1 - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik}=n+k_2 - j_{ik} + 1}^{j_{ik} - k_1} \sum_{(n_{sa}=n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) -
\end{aligned}$$



$$\sum_{k=1}^{\sum_{j_s=l_i+n-D-s+1}} \sum_{(l_s)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(n - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - 1)!}{(n + j_{sa} - j_{sa}^s - s)! \cdot (n + j_{sa} - j_{sa}^s - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s = n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j_{sa}^{ik} < n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > 0 \wedge l_{sa} + j_{sa}^{ik} - j_{sa} < l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq n + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l_s = 1 \wedge l_s > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{(j_s)}^{( )}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i-1)}{(j_s-2)(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_{sa}+1)(n_{is}+j_{sa}-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}+1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)} \right) \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{j_s=1}^{( )} \sum_{j_{sa}^{ik}+1}^{( )} \sum_{j_{ik}-j_{sa}}^{(l_s+j_{sa})} \sum_{j_{sa}^{sa}+n+j_{sa}-D-s}^{( )} \sum_{n_i}^{( )} \sum_{n_{is}=n+l_k-j_s+1}^{( )} \sum_{n_{is}+j_s-j_{sa}-l_{k_1}}^{( )} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{( )} \frac{(n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_{ik} \leq j_{ik} - j_{sa} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$j_{sa} - j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+ \dots)} \binom{(\dots)}{\dots} \right) +$$

$$\left( \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \binom{(\dots)}{\dots} \right)$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\left( \sum_{k=1} \sum_{(j_s=2)} \binom{(j_{ik}-j_{sa}^{ik})}{\dots} \right)$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \binom{(\dots)}{\dots}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} + l_{k_2} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

GÜLDENYA

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - j_s + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa}) \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{j_s=j_{ik}-j_{sa}+1}^{j_s+l_{sa}-1} \sum_{j_{sa}=j_{ik}-j_{sa}+1}^{j_{sa}+l_{sa}-1} \\
& \sum_{j_{ik}=j_{sa}-D-s}^{l_s+j_{sa}-1} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
& \sum_{n_i=n+l_1}^n \sum_{n_{is}=n+l_1-j_s+1}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_2}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_2)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_1 - l_2)!}{(n_i - n - l_1 - l_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1}^{\lfloor \frac{j_s}{2} \rfloor} \sum_{(j_s - 2k + n - D - j_{sa}^{ik} + 1)}$$

$$\sum_{(j_{ik} = j_s + j_s - 1)} \sum_{(j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1} \sum_{(n_{sa} = n - j_{sa} + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) +$$



$$\begin{aligned}
 & \left( \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)} \right. \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j_{sa}^{ik}-l_{k_2})}^{(n_{ik}-j_s-l_{k_2})} \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}^{ik})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\
 & \sum_{k=1}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}
 \end{aligned}$$

GÜLDÜZYA

$$\begin{aligned}
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{i_s} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{i_k} = n + \mathbb{k}_2 - j_{i_k} + 1}^{n_{i_s} + j_s - j_{i_k} - \mathbb{k}_1} \sum_{(n_{s_a} = n - j^{s_a} + 1)}^{(n_{i_k} + j_{i_k} - j^{s_a} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} - n_{s_a} - j^{s_a})!} \cdot \\
 & \frac{(n_{s_a} + j^{s_a} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!}{(n_{i_k} + j_{i_k} - j_{s_a}^{i_k} - 1)! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot \\
 & \left. \frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j^s - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!} \right) - \\
 & \sum_{k=1} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_s)} \\
 & \sum_{j_{i_k} = j_s + j_{s_a}^{i_k} - 1} \sum_{(j^{s_a} = j_{i_k} + j_{s_a} - j_{s_a}^{i_k})}^{(\quad)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{i_s} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{i_k} = n_{i_s} + j_s - j_{i_k} - \mathbb{k}_1} \sum_{(n_{s_a} = n_{i_k} + j_{i_k} - j^{s_a} - \mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k})!}
 \end{aligned}$$

GÜLDEN

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > = 2 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = \mathbb{k} \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 \vee \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - l_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDENMYA

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j_s - j^{sa} - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_s + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - j_s - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
& \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - 1)} \sum_{(j^{sa} = j_{sa} + 1)}^{(\quad)} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(\quad)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa})}^{(l_{sa})} (j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n_{sa} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{l_{ik}=l_s+j_{sa}^{ik}}^{(l_{ik})} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{n_{ik} = j_{ik} - j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - 1} \sum_{n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2}^{j_{sa}^{ik} + 1} \sum_{n_i = n_{ik} - k_1}^n \frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_s \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$



$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$S: j_{ik} j^{sa} = \sum_{i=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik} + j_{sa}^{ik} - 1}^{(l_{sa})} \sum_{(a=j_{ik} + j_{sa} - j_{sa}^{ik})}^{(l_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)} \sum_{(j_{ik}=j_s+j_{sa}^{ik}-1)} \sum_{(j_{ik}+l_{sa}-j_{sa}^{ik})} \sum_{(n_i-j_s+1)} \sum_{(n+l_{sa}-j_s+1)} \sum_{(n+l_{sa}-j_s+1)} \sum_{(n+l_{sa}-j_s+1)} \frac{(n_i + j_{sa}^{ik} + j_{sa}^s - j_s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i + j_{sa}^{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

- $((D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$
- $(D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$
- $(D \geq n < n \wedge I = \mathbb{k} >= 0 \wedge$
- $j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+j_{sa}-1)} \sum_{(j_{sa}=j_{sa}^{ik}+j_{sa}-1)} \sum_{(j_{sa}=j_{sa}^{ik}+j_{sa}-1)} \sum_{(n_i=n+k-j_s+1)} \sum_{(n_{is}=n+k_1-j_{sa}-k_2)} \sum_{(n_{sa}=n-j_{sa}^{ik}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j_{sa}^{ik})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \left( \sum_{k=1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j_{sa}=j_{sa}^{ik}+2)}^{(l_s+j_{sa}-1)} \right)$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{k_2} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa}) \cdot j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
 \end{aligned}$$

$$\sum_{k=1} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(j_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=j_{sa}+2)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_k} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - s)!} \cdot \\
& \sum_{i=1}^n \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_s=j_{ik}-j_{sa}^{ik}} \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{j_{ik}=j_s+j_{sa}^{ik}} \sum_{j_{sa}=j_{sa}^{ik}}^{j_{sa}=j_{sa}^{ik}} \sum_{j_s=j_s}^{j_s=j_s} \sum_{j_{ik}=j_{ik}}^{j_{ik}=j_{ik}} \sum_{j_{sa}=j_{sa}}^{j_{sa}=j_{sa}} \sum_{n_i=n+k}^{n_i=n+k} \sum_{n_{is}=n+k-j_s+1}^{n_{is}=n+k-j_s+1} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-k_1}^{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-k_2} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-k_2}^{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-k_2} \\
& \frac{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((n \geq n \wedge n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$(j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{j_s} (j_s = j_{ik} - j_{sa}^{ik} + 1) \right) \cdot \left( \sum_{k=1}^{j_{sa}^{ik} - 1} (j_{sa}^{ik} = j_{sa} - j_{sa}^{ik} + 1) \right) \cdot \sum_{n_i = n + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{n_{is} = n + \mathbb{k} - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_{ik} - \mathbb{k}_1} \sum_{n_{sa} = n - j^{sa} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +$$

$$\begin{aligned}
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-j_s+1)}^{(n-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1}^{(n_{is}+j_s-j_{ik}-k_2)} \sum_{(n_{sa}=n-j_{sa}+1)} \\
 & \frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik})! (n_{sa}-1)!}{(j_{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})}
 \end{aligned}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{k_1} - j_{sa}^{ik} - l_{k_2} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{ik} - l_{k_1} - j_s)! \cdot (j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+2}^{l_s+j_{sa}^{ik}-1} \sum_{(j_s=2)}^{(j_s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \right) \cdot \\
& \sum_{k=1}^{l_s} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \\
& \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )} \\
& \sum_{n_i = n + \mathbb{k}_1}^n \sum_{(n_{is} = n + \mathbb{k}_1 - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{( )} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \right) \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j_s=2)}^{(l_s)} \sum_{(j_{sa}=j_s+j_{sa}^{ik})}^{(l_s)} \\
& \sum_{n+l_k}^{(n_i-j_s+1)} \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{is}+j_{sa}^{ik}-l_{k_1}}^{(n_{ik}-l_{k_1})} \sum_{(n_{ik}-l_{k_1})}^{(n_{ik}-l_{k_1})} \\
& \sum_{n_{ik}+l_{k_2}-j_{ik}}^{(n_{sa}=n-j^{sa}+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
 & \sum_{k=1} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-1} \sum_{(n_{ik}=n+k_2-j_{ik}-1)}^{(n_{ik}+j_{ik}-1-k_2)} \\
 & \sum_{(n_{sa}=n-j^{sa})} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{ik} + j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
 \end{aligned}$$

$$\sum_{k=1} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

$$D + s - n < l_i \leq D + l_s + j_{sa} - n - 1 - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)}^{(n + j_{sa} - s)} \sum_{j_{ik} = l_{ik} + n - D}^{l_{ik}} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)}$$

$$\sum_{n_i = 1}^n \sum_{(n_i - j_s + 1)}^{(n - j_s + 1)} \sum_{n_{is} + j_s - j_{ik} - j_{sa}}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \sum_{(j_{ik} = j_{ik} + 1)}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \sum_{(n_{is} = n_{is} + 1)}^{(n_{is} + j_s - j_{ik} - j_{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - j_s + 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)}^{(l_s)}$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})}$$

$$\frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_s+1) \cdot (n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}+n_{sa}-1)}{(j^{sa}-j_{ik}+1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

$$(D > n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, j_{sa}, j_{sa}^{i}\} \wedge$$

$$s > j_s \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{\binom{()}{j^{sa}=l_{sa}+n-D}} \sum_{\binom{()}{j^{sa}=l_{sa}+n-D}} \right)$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(n_i-j_s+1)} \right) \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
 \end{aligned}$$

GÜLDENMÄSSIG

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{l=2}^{(l_s - j_s)}$$

$$\sum_{j_{sa} + j_{sa}^{ik} - j_{sa} = l_{sa} + n - D} \sum_{j_{sa} = l_{sa} + n - D}$$

$$\sum_{i=1}^n \sum_{k=1}^{n_{i_s} - k} (n_{i_s} + k - j_s + 1)$$

$$\sum_{n_{i_s} + j_{ik} - k_1}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \sum_{n_{ik} = 1}^{n_{sa} - j_{ik} + 1} (n_{sa} - j^{sa} + 1)$$

$$\frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!}$$

$$\frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

GÜLDENMYA

$$\sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_i+n+j_{sa}-D)}^{(\ )}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{(\ )} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa})}^{(\ )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - n)!}{(D - n + s - l_i - j_s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik} \wedge$$

$$D + j_s - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

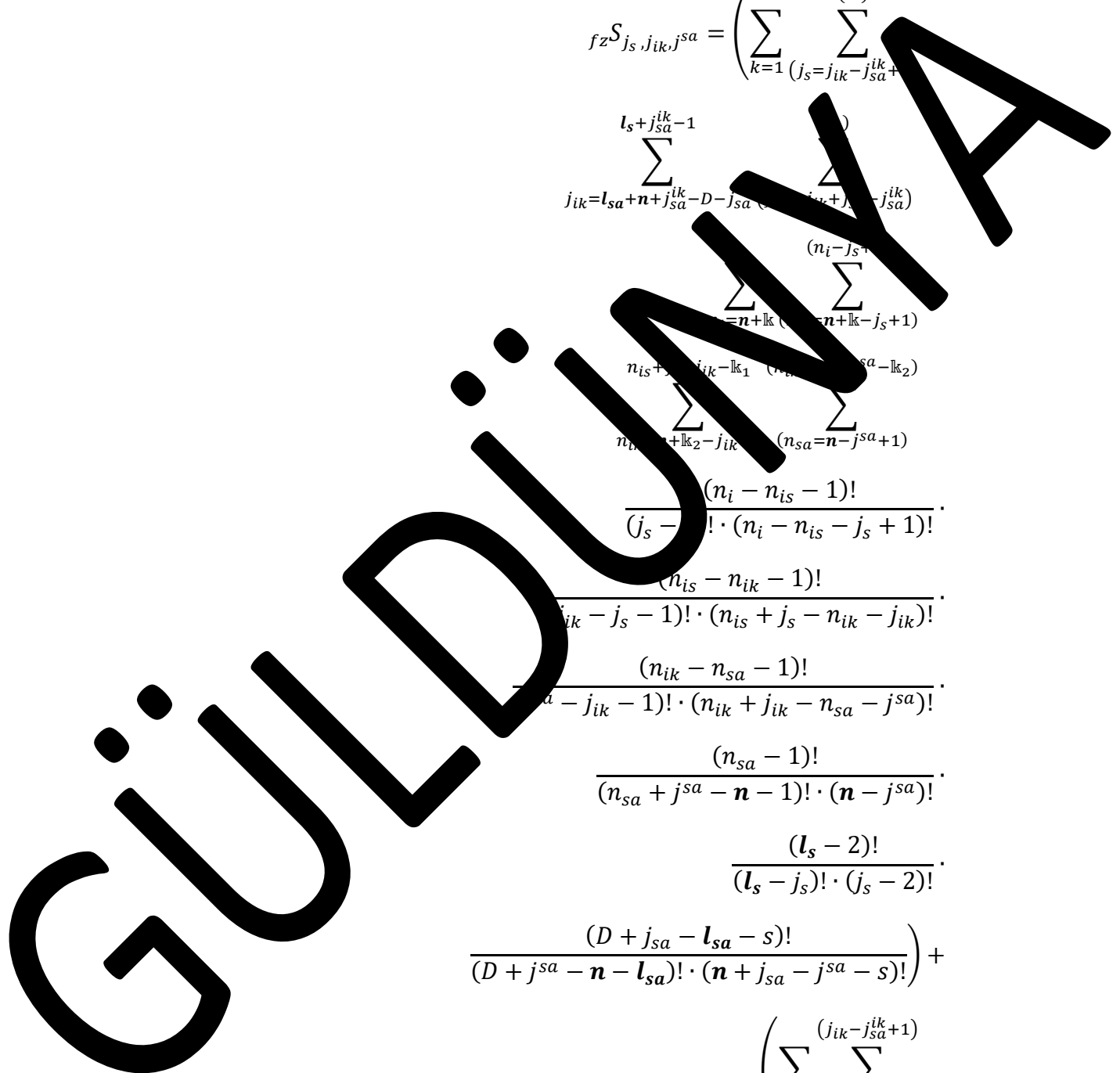
$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(n_i-j_s+1)} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{is}+j_{ik}-k_1)}^{(n_{is}+j_{ik}-k_2)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \left( \sum_{k=1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \right)$$



$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)! \cdot (l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} + l_{k_2} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{ik} - 1)! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

GÜLDÜZYAZ

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - l_{ik} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(n_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{ik} - l_{ik})! \cdot (j_s + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_s - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

GUIDANCE



$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_s - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (j_{sa} + j_s - j_s)!} + \\
 & \sum_{j_s=2}^{(j_{ik} - j_{sa}^{ik})} \sum_{j_{ik}=l_{sa}+n+j_s}^{j_{ik}+j_{sa}^{ik}-1} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(D-j_{sa})} \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = l_i + n + j_s^{ik} - 1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \sum_{(j_{sa} = j_{ik} - j_{sa}^{ik} + 1)}$$

$$(n_i - j_s + 1)$$

$$\sum_{(n_i - j_s + 1)}^{( )} \sum_{(n_i - j_s + 1 - k_1 - k_2)}$$

$$\sum_{n_{ik} = n_{is} + j_s - k_1}^{( )} \sum_{(n_{sa} = j_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n_{is} - k_1 - k_2)! \cdot (n_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - s < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$(D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \sum_{(j_{ik}=j_{sa}^i-1)}^{(j_s)} \sum_{(n_i=n+k)}^{(n_i-j_s+1)} \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_{is}+j_{ik}-k_1)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left( \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})}$$

$$\frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_s+1) \cdot (n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}+n_{sa}-1)}{(j^{sa}-j_{ik}+1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}+1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} +$$

$$\sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbf{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbf{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbf{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - l_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\mathbf{n}+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\mathbf{n}+j_{sa}-s)} \\
 & \sum_{n_i=\mathbf{n}+\mathbf{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbf{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbf{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbf{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbf{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (n_{sa} + j_{sa}^{ik} - j_{sa} - l_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k_1=0}^{\sum_{i_s=l_i+n-D-s+1}} \sum_{\substack{(\cdot) \\ j_s + j_{sa}^{ik} - 1 \leq j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}} \\
& \sum_{n_i=n+k_1}^n \sum_{(n_{is}=n+k_1-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^s j_s j_{sa} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{j_s} \sum_{l=1}^{j_s - k} (j_s = j_{ik} - j_{sa}^{lk})$$

$$\sum_{k=1}^{j_s - s} \sum_{l=1}^{j_s - k} (j^{sa} = l_{ik} + j_{sa}^{lk} - j_{sa}^{s+1})$$

$$\sum_{n_i = n + k_1}^{n_i - j_s + 1} \sum_{n_{is} = n + k_1 - j_s + 1}^{n_i - j_s + 1} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{j_{ik} - k_1} \sum_{n_{sa} = n - j^{sa} + 1}^{(n_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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$$\sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=l_{sa}+n)}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}}^{(\cdot)} \sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{(\cdot)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{ik} - l_{k1} - l_{k2})!}{(n_i - n - l_{k1} - l_{k2})! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - 1)!}{(D + j_s + s - l_i - l_s - 1)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_{sa} + j_{sa}^{ik} - j_s \wedge l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

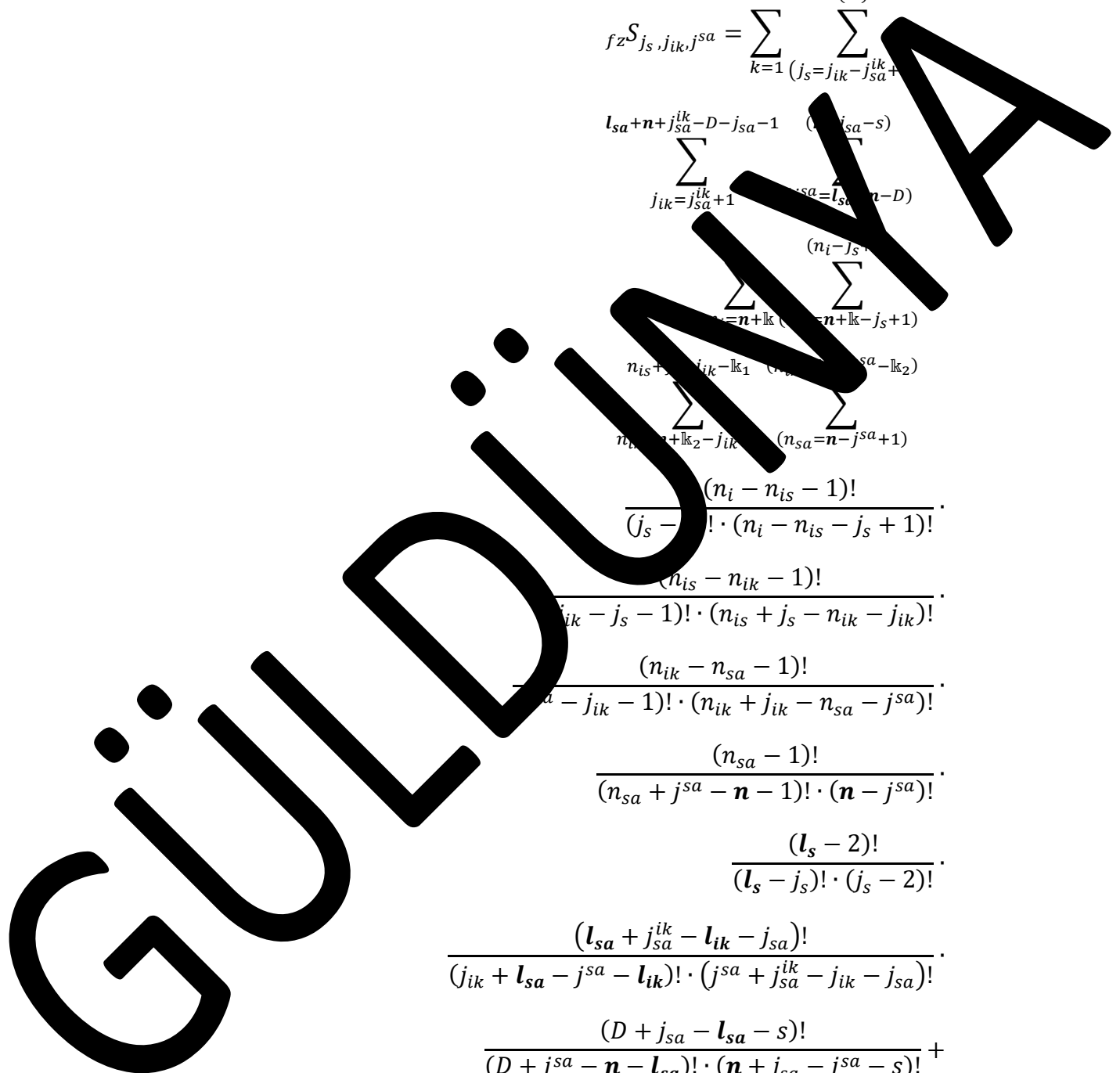
$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \frac{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1}{j_{ik}=j_{sa}^{ik}+1} \frac{(n_{sa}-s)}{(n_{sa}-D)} \frac{(n_i-j_s)}{(n+k)} \frac{(n_{is}+j_{ik}-k_1)}{(n_{sa}-k_2)} \frac{(n_{ik}+k_2-j_{ik})}{(n_{sa}=n-j_{sa}+1)} \frac{(n_i-n_{is}-1)!}{(j_s-1)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}$$



$$\begin{aligned}
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_{sa})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_{sa}^{ik})!(n_{is}+j_{sa}-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}+n_{sa}-1)!}{(j_{sa}-j_{ik}+1)!(n_{ik}+j_{ik}-n_{sa}-j_{sa}^{ik})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)!(n-j_{sa}^{ik})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+l_{ik}-j_{sa}^{ik}-l_{ik})!(j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})!(n+j_{sa}-j_{sa}^{ik}-s)!} \cdot \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-k_2)}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}}
 \end{aligned}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa})!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)$$

$$(D \geq n < n \wedge l_s \leq 0 \wedge$$

$$j_s \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^s\}$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(j_{ik} + j_{sa}^{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{j_s = j_{sa} + 1}^{(j_s - j_{sa} + 1)} \sum_{j_{ik} = j_{sa}^{ik} - 1}^{(j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{n_i = n + k}^n \sum_{n_{is} = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)} \\
& \frac{(l_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, i}^{j_{sa}} = \sum_{k=1}^{(j_s - j_{sa}^{ik} + 1)} \frac{(j_s - j_{sa}^{ik} + 1)!}{(j_s - k)! \cdot (j_{sa} - j_{sa}^{ik} + k - 1)!} \cdot \frac{(n_i - j_s + 1)!}{(n_i - n + k - j_s + 1)!} \cdot \frac{(n_{is} + j_{sa} - k - k_1)!}{(n_{is} + j_{sa} - k - k_1 - k_1)!} \cdot \frac{(n_{ik} + j_{ik} - j_{sa} - k_2)!}{(n_{ik} + j_{ik} - j_{sa} - k_2 - k_2)!} \cdot \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

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$$\begin{aligned}
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_s)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=n-j^{sa})}^{n_{is}+j_s-j_{ik}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_{sa} - s = l_s \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s > 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k}: z = 2 \wedge (\mathbb{k} = \mathbb{k}_1 + \dots) \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-1} \sum_{\binom{(\cdot)}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_{is}=n+\mathbb{k}-j_s+1)$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 1)!} \cdot \\
 & \frac{(l_{jk} - l_s - j_{sa} + 1)!}{(j_s + l_{jk} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \sum_{k=1}^{l_s + j_s - 1} \sum_{j_{sa} = j_{sa}^{ik} + 1}^{j_{sa}^{ik} + 1} \sum_{j_{ik} = n - D}^{j_{ik} + j_{sa} - j_{sa}^{ik}} \sum_{n_i = 0}^n \sum_{k_1 = 0}^{n_i} \sum_{k_2 = 0}^{n_i - k_1} (n_{sa} = n_{ik} + j_{ik} - j_{sa} - k_2) \cdot \frac{(n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_{sa} < j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$j_{sa} - j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{(n+j_{sa}^{ik}-s)} \dots$$

$$\sum_{j_{ik}=l_{ik}+n-D-j_{sa}^{ik}}^{(n+j_{sa}^{ik}-s)} \dots$$

$$\sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \dots$$

$$\sum_{(n+l_{k_1}-j_s+1)}^{(n+l_{k_1}-j_s+1)} \dots$$

$$\sum_{(n+l_{k_2}-j_{ik}+1)}^{(n+l_{k_2}-j_{ik}+1)} \dots$$

$$\sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}=n-j_{sa}+1)} \dots$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)}$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \binom{(\quad)}{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i+l_k-j_s)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_2})}$$

$$\frac{\binom{(n_i-1)}{(j_s-2)} \cdot \binom{(n_i-n_{is}-1)}{(n_i-n_{is}-1)!}}{\binom{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!} \cdot \binom{(n_{is}+j_s-n_{ik}-j_{ik})!}{(n_{is}+j_s-n_{ik}-j_{ik})!}}$$

$$\frac{\binom{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)!} \cdot \binom{(n_{is}+j_{ik}-n_{sa}-j_{sa})!}{(n_{is}+j_{ik}-n_{sa}-j_{sa})!}}{\binom{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)!} \cdot \binom{(n-j_{sa})!}{(n-j_{sa})!}}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{\binom{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)!} \cdot \binom{(j_{ik}-j_s-j_{sa}^{ik}+1)!}{(j_{ik}-j_s-j_{sa}^{ik}+1)!}}{\binom{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})!} \cdot \binom{(n+j_{sa}-j_{sa}-s)!}{(n+j_{sa}-j_{sa}-s)!}}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} \binom{(\quad)}{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa})!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) =$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n + j_{sa} - s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - j_s + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1) \cdot (j_{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \\
& \sum_{j_s = j_{ik} - j_{sa}^{ik} + 1}^{j_{sa} - 1} \sum_{j_{ik} = j_{sa}^{ik} - j_{sa} - j_{sa} - 1}^{j_{sa} - 1} \sum_{j_{sa} = l_{sa} + n - D}^{(n_i - j_s + 1)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{j_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{( )} \sum_{(n_{sa} = n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}^{( )} \\
& \frac{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}
\end{aligned}$$

$$D - n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$



$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(l_{ik}+n-D-j_{sa})} \sum_{s=2}^{(n+j_{sa}-s)} \sum_{j_{ik}=l_{ik}-D}^{n} \sum_{j_{sa}=l_{sa}+1}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}_1}^{n} \sum_{j_s=j_s+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_{ik}=n-j_{ik}+1}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{2! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

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$$\begin{aligned}
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}} \sum_{(j^{sa}=l_{sa}+n-)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-l_{s1}}^{n_{is}+j_s-j_{ik}-l_{s1}+j_{ik}-l_{s2}-l_{k2}} \sum_{(n_{sa}=n-j^{sa}+)} \\
 & \sum_{n_{ik}=n+l_{k2}-j_{ik}}^{n_{ik}=n+l_{k2}-j_{ik}} \sum_{(n_{sa}=n-j^{sa}+)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l_s - j_{sa})! \cdot (n - j_{sa} - j^{sa} - l_s)}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge \\ & D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - j_{sa}^{ik} \wedge \\ & D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee \\ & ((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\ & D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee \\ & ((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge \\ & D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge \\ & (D \geq n < n \wedge l = \mathbb{k} \geq 0) \wedge \end{aligned}$$

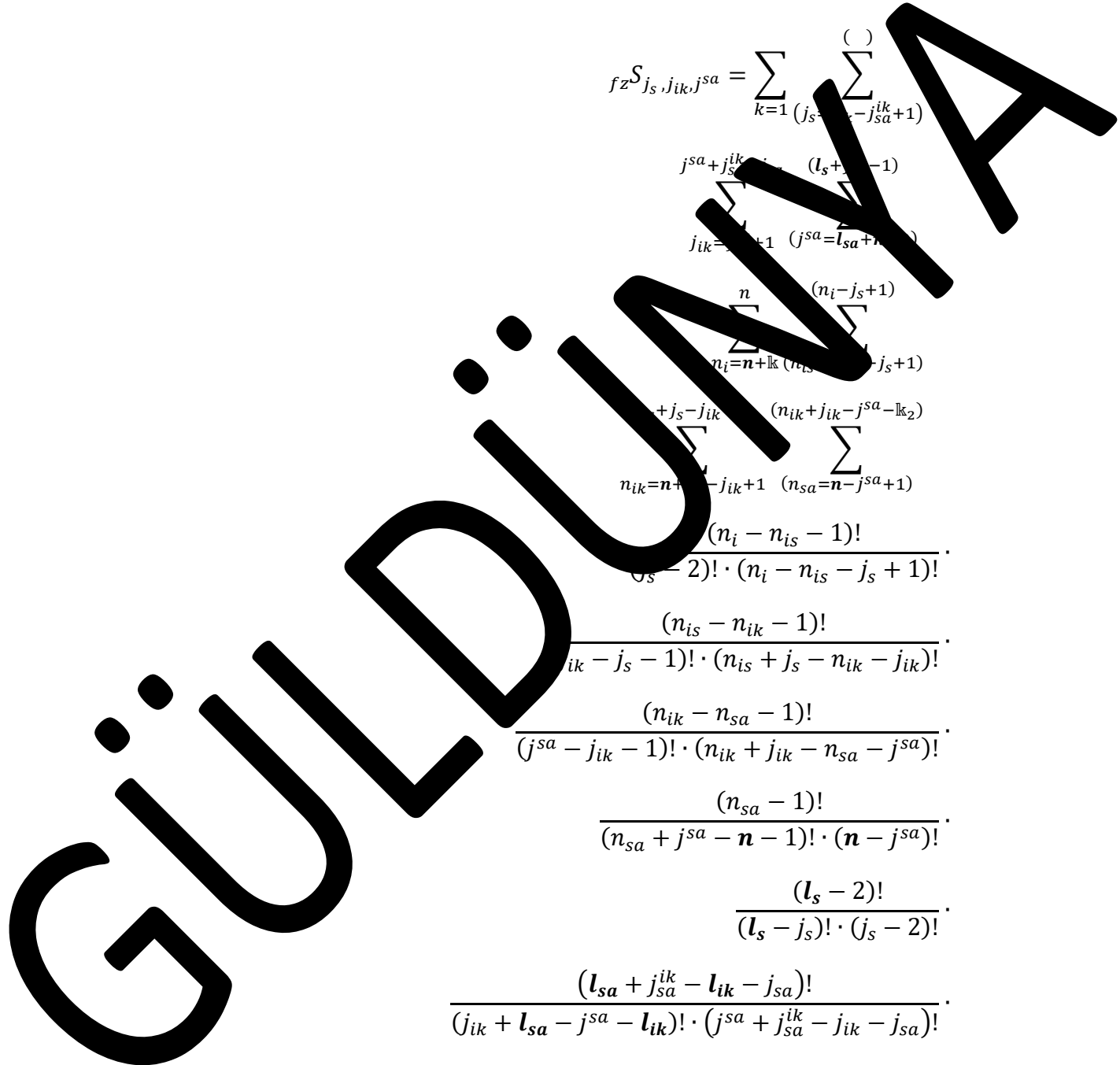
$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \sum_{(l_s+l_{sa}-1)}^{j_{sa}+j_{sa}^{ik}} \sum_{(j_{ik}=j_{sa}+1)}^{(j_{sa}=l_{sa}+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-n_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+j_{sa}-j_{ik}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$



$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-2)!(n_{is}+j_{sa}-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \\
 & \sum_{k=1}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{}} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{\binom{()}{}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

$$\frac{\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{sa} + n + j_{sa}^{ik} - D - j_{sa} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(n + j_{sa} - s)} \frac{(n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(n + j_{sa} - s)}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})}$$

$$\frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!}$$

$$\frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!}$$

$$\frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} - n_{s_a} - j^{s_a})!}$$

$$\frac{(n_{s_a} + j^{s_a} - n - 1)!}{(l_s - 2)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{s_a} + j_{s_a}^{i_k} - l_{i_k} - j_{s_a})!}{(j_{i_k} - l_{s_a} - j_{s_a}^{i_k} - l_{i_k} - j_{s_a})! \cdot (j^{s_a} + j_{s_a}^{i_k} - j_{i_k} - j_{s_a})!}$$

$$\frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j_{i_k} - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!}$$

$$\sum_{k=1}^{\binom{()}{j_s=j_{i_k}-j_{s_a}^{i_k}+1}}$$

$$\sum_{j_{i_k}=l_i+n+j_{s_a}^{i_k}-D-s}^{l_{i_k}} \sum_{(j^{s_a}=j_{i_k}+j_{s_a}-j_{s_a}^{i_k})}^{\binom{()}{j_s=j_{i_k}-j_{s_a}^{i_k}+1}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{i_k}=n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_{s_a}=n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})}^{\binom{()}{j_s=j_{i_k}-j_{s_a}^{i_k}+1}}$$

$$\frac{(n_i + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k})!}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l_s = k > 0 \wedge$$

$$j_{sa} \neq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > s \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-n_{is}+n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+l_{k_2}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s)!}{(j_{ik} + l_{sa} - j^{sa})! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_i + n - D - s + 1)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(\quad)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\quad)} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(\quad)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{sa}+n-D)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_s + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n_{sa} - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{i=j^{sa}+j_{sa}-j_s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \frac{(l_s + j_s - 1)!}{\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(j^{sa} = 1)} \sum_{(j_{sa} = 1)}^{(j_{sa} = 2 - s)} \frac{(n_i - j_s + 1)!}{\sum_{k_1} \sum_{k_2} (n_{ik} + k_1 + k_2 - j_s + 1)!} \frac{(n_i + j_{ik} - j_{sa}^s - j_s - 1 - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n_{ik} - k_1 - k_2 + 1)! \cdot (n + j_{sa} - j_s - s - j_{sa}^{ik})!} \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_s + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - 1 < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}^{ik}} = \sum_{i=1}^{(j_s-1)} \sum_{(j_s=2)}^{(j_s-1)} \dots \sum_{(j_s-1)}^{(j_s-1)}$$

$$l_s + j_{sa} - 1$$

$$j_{ik} = l_{sa} + j_{sa}^{ik} - D - 1 \quad (j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik} (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n+j_{sa}^{ik}-s} \sum_{( )}$$

$$\sum_{n+l_k (n_{is}=n+l_k+1)}^n \sum_{(n_{is}+1)}$$

$$\sum_{n_{ik}=j_{ik}^{k_2}-j_{ik}^{k_1}}^{n_{is}+j_s-j_{ik}^{k_1}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_s - j_s - 1)! (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 1)!}{(l_s - 1)! \cdot (s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l_s - j_{sa})! \cdot (n - j_{sa} - j^{sa} - l_s - 1)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1)$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1)) \wedge$$

$$(E \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j^{sa}} &= \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)}^{(n)} \\
 &\sum_{j_{ik}=l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa}=j_{ik} + j_{sa} - j_{sa}^{ik})}^{(n)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{s1}} \sum_{(n_{sa}=n-j^{sa}+j_{sa}^{ik}-k_2)}^{(n_{ik}-j_s+1)} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa} + n - D - j_{sa} + 1)}^{(l_s)} \\
 &\sum_{j_{ik}=j_s + j_{sa}^{ik} - 1}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa}=j_{ik} + j_{sa} - j_{sa}^{ik})}^{(n)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_s - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa} \wedge$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$\begin{aligned}
 f_{zS} S_{j_s, j_{ik}, j^{sa}} &= \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{is}+j_s-j_{ik}-l_{ik_1}}^{n_{is}+j_s-j_{ik}-l_{ik_1}} \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{ik}=n+l_{k_2}-j_{ik}} \sum_{(n_{sa}=n-j^{sa}+j_{sa})}^{(n_{ik}-l_{k_2})} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - n_{ik} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{sa} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{ik} - 1)! \cdot (j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
 & \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
 & \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - 1)} \sum_{(j^{sa} = l_i + n + j_{sa} - D - s)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\quad)}
 \end{aligned}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!}$$

$$((D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$D + s - \mathbf{n} < l_i \leq D + l_{sa} + s - \mathbf{n} - j_{sa}) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1) \vee$$

$$(D \geq \mathbf{n} < n \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - \mathbf{n} < l_{sa} \leq D + l_s + j_{sa} - \mathbf{n} - 1)) \wedge$$

$$(D \geq \mathbf{n} < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s=2)}^{(j_s - s)}$$

$$j_{ik} = l_s + j_s^{ik} - D \quad (j^{sa} = l_{sa} + j_s^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n+j_s - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{(n_{sa}=n - j^{sa} + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$



$$\begin{aligned}
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \frac{n_{is}+j_s-j_{ik}-j_{sa}^{ik}+j_{ik}^{sa}-j_{sa}^{sa}-k_2}{n_{ik}=n+k_2-j_{ik}^{sa}} \cdot \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s+1)!} \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \\
 & \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > \dots \wedge$

$l_i \leq D + s - n \wedge$

$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa} = j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1$

$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^s, \mathbb{k}_2, j_{sa}^s, \dots, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - n - l_s - s)!}{(D + j^{sa} - n - l_s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{( )} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_{sa}^{ik}} = \sum_{k=1}^{( )} (j_s = j_{ik} - j_{sa}^{ik} + 1)$$

$$\sum_{j_s = j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}}^{(l_{sa})} (j_{sa} = j_{sa} + 1)$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j_{sa} + 1)}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{sa})} (j^{sa} = l_i + j_{sa} - D - s) \sum_{(n_i = n + 1)}^{(n_i = n + 1)} \sum_{(n + k)}^{(n + k)} \sum_{(n_i = n + j_s - k_1)}^{(n_{sa} = n + j_s - k_2)} (n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik} - k_1 - k_2)! \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + j_{sa}^{ik} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > n \wedge l_s \leq D - n - 1 \wedge$$

$$1 < j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_s \leq n + j_s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa}^{ik} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - 1 \wedge$$

$$(D \geq n - n \wedge I = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=j_{sa}+1)}^{(\quad)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(j_{ik}-l_{k_2})}$$

$$\frac{(n_{is}-n_{is_1}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot$$

$$\frac{(n_{is}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} -$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=j_{sa}+1)}^{(\quad)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1$$

$$(D \geq n < n \wedge l = \mathbb{k} > = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - j_{sa}^i \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s > 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_2 : z = 2 \wedge (\mathbb{k}_2 = \mathbb{k}_1 + 1) \Rightarrow$$

$$fz_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - 1)! \cdot (n + j_s - j^{sa} - s)!} \cdot \\
& \sum_{j_s=1}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{j_{sa}=j_{ik} - j_{sa}^{ik} + 1}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \\
& \sum_{j_{sa}=j_{sa} - j_{sa}}^{j^{sa} = l_i + n + j_{sa} - D - s} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\dots} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{\dots} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

GÜLDÜNYA

$$\sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_{ik} + j_{ik} + j_{sa}^{ik} - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - 1)!}{(D + j_s + s - l_i - 1)! \cdot (n + j_{sa} - j_{sa}^s - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{ik} + n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_{sa} + j_{sa}^{ik} - j_{sa}^{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + 1 - n < l_i \leq D - l_s + s - 1 - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$2 \wedge \dots = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f^z S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \binom{(\quad)}{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2})}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2})}$$

$$\frac{\binom{n_i-1}{j_s-2} \cdot (n_i-n_{is}-1)!}{(n_i-n_{is}-1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_{sa}^{ik}-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}^{ik}-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j_{sa}^{ik})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j_{sa}^{ik})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}^{ik}-s)!}$$

$$\sum_{k=1}^{\quad} \binom{(\quad)}{j_s=j_{ik}-j_{sa}^{ik}+1}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \binom{(\quad)}{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \binom{(\quad)}{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2}}$$

GÜLDÜZMAYA

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa})!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) =$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{l_{ik}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j_s - j_{sa} - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - l_{sa})!} \cdot \\
& \sum_{i=j_{sa}+1}^{(j_s - j_{sa} + 1)} \sum_{a=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_s - j_{sa} + 1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(j_s - j_{sa} + 1)} \\
& \frac{(n_{is} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$n \geq n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

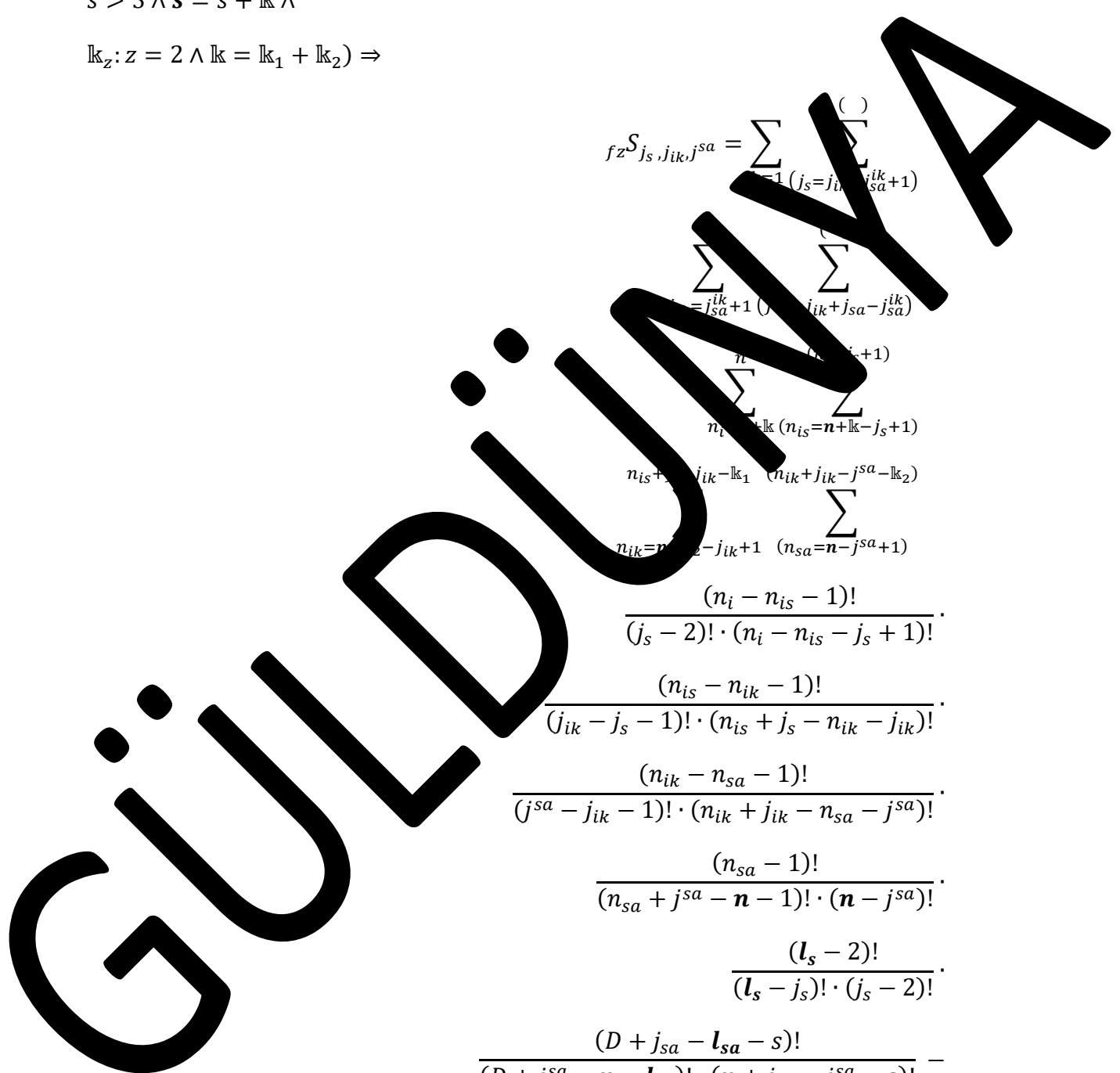
$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{i=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \sum_{(j_{sa}=j_{sa}^{ik}+1)}^{( )} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{( )} \sum_{(j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \sum_{(n_i=n_i^{ik}+1)}^{( )} \sum_{(n_i=n_i^{ik}+1)}^{( )} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{( )} \sum_{(n_{is}+j_{ik}-\mathbb{k}_1)}^{( )} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{( )} \sum_{(n_{ik}=n_{sa}^{ik}-j_{ik}+1)}^{( )} \sum_{(n_{sa}=n-j_{sa}+1)}^{( )} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$



$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - j_s - 1)!}{(D + j^{sa} + s - n - j_{sa}^{ik} - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} \leq j_{ik} \leq j_s + 1 + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(n \geq n < n) = \mathbb{k} > 0 \wedge$$

$$j_{sa} - j_{sa}^i - 1 \wedge j_{sa}^{ik} - j_{sa} - 1 = j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s - 1 \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa}-j_{sa}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+\mathbb{k}_2-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-\mathbb{k}_1} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} - n_{s_a} - j^{s_a})!} \cdot \\
 & \frac{(n_{s_a} + j^{s_a} - n - 1)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D + j_{s_a})! \cdot (l_{s_a} - s)!}{(n + j_{s_a} - j^{s_a} - s)!} \cdot \\
 & \sum_{k=1}^{(l_{s_a}-j_{s_a}+1)} \sum_{(j_s=2)}^{( )} \\
 & \sum_{j_{i_k}=j_s+j_{s_a}^{i_k}-1}^{( )} \sum_{(j^{s_a}=j_{i_k}+j_{s_a}-j_{s_a}^{i_k})}^{( )} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n_{i_s}+j_s-j_{i_k}-\mathbb{k}_1}^{( )} \sum_{(n_{s_a}=n_{i_k}+j_{i_k}-j^{s_a}-\mathbb{k}_2)}^{( )} \\
 & \frac{(n_i + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDEN



$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S j_{sa}^{ik} = \sum_{k=1}^{(l_{sa} - j_{sa} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \binom{(\quad)}{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{(l_{sa} - j_{sa} + 1)} \sum_{(j_s = l_i + n - D - s + \dots)} \dots$$

$$D \geq n < n \wedge l_s = 1 \wedge l_s = D - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + \dots \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \dots + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s - j_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D > n - l_i \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{sa}+j^{sa}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j^{sa})}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik})}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s > l_s \wedge$

$D + s - n < l_i \leq D + l_s + s - n - 1$

$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$

$s > 3 \wedge s = s + 1$

$\mathbb{k}_1 : z = 2 \wedge (\mathbb{k}_1 = \mathbb{k}_1 + 1) \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{\binom{(\cdot)}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_i - j_s - s)! \cdot (n + j_s - j^{sa} - s)!} \cdot \sum_{k_1=0}^{j_s - j_{sa} - 1} \sum_{k_2=0}^{j_s - j_{sa} - 1 - k_1} \sum_{j_{sa}=j_{ik} - 1}^{(j_{sa}=j_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{n_i=n+k_1}^n \sum_{n_{is}=n+k_1-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^s j_s j_{sa} = \sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{j_s=1}^{l_{sa}} \sum_{j_{ik}=j_s-1}^{l_{sa}-j_s} (j^{sa}=l_{ik}+j_{sa}-j_{sa}^{ik}+1) \\
& \sum_{n_i=n+l_k}^{l_{sa}} \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{j_{ik}-l_k-1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_k-2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$

$$\sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j_{sa}=j_{sa}+1)}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\cdot)} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\cdot)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - 1)!}{(D + j_s + s - l_i - 1)! \cdot (n + j_{sa} - j_{sa}^s - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_{sa} + j_{sa}^{ik} - j_s \wedge l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$



$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa} + 1)}^{( )} \sum_{j_{ik} = j_{sa} + 1}^{l_{ik}} \sum_{j_{ik} + j_{sa} - j_{sa}^{ik}}^{( )} \sum_{n_i = n + l_{k_1} - j_s + 1}^{(n_i - j_s)} \sum_{n_{is} = j_{ik} - l_{k_1} - (j_{sa} - l_{k_2})}^{(n_i - j_s)} \sum_{n_{sa} = n + l_{k_2} - j_{ik}}^{(n_{sa} = n - j_{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa} + 1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - j_s)!}{(D + j_{sa} + s - n - j_{sa}^{ik} - j_{sa}^{ik})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq (D + j_{sa} - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq (D + j_{sa} - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_{zS}^{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_{sa})} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{(l_{sa})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}-k_1}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+k_2-j_{ik})}^{(n_i-j_s+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - \dots$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$(D \geq n < n \wedge l = \mathbb{k}) \Rightarrow$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1, j_{sa}^s = j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$

$s: 3 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: \dots = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{(j_s=1)}^{(\quad)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \left( + \right.$$

$$\sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik} (j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=n+l_{sa} (n_{ik}=n_i-j_{ik}-l_{sa}+1)}^n \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{sa}+1}^{n_{sa}=n-j^{sa}+1}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \left) - \right.$$

$$\sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik} (j^{sa}=j_{sa})}$$

$$\sum_{n_i=n+l_{sa} (n_{ik}=n_i-j_{ik}-l_{sa}+1)}^n \sum_{( )}^{( )} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{sa}+1}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j}^{(\ )} \sum_{(j^{sa}=j_{sa})}^{(\ )}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n_i-j_{ik}-k_1)}^{(\ )} \sum_{(n_{sa}=n_{ik}+j_{ik}-k_2)}^{(\ )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{lk_1 - lk_2})!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - \dots)}{(D + \dots - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik}^{ik} \leq j_{ik} \leq j_s + j_{sa} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_{sa} \leq D + s - n$$

$$(n \geq n < n) \wedge k_1 = k_2 > 0 \wedge$$

$$j_{sa}^{ik} - j_{sa}^i - 1 \wedge j_{sa}^{ik} - j_{sa}^i - 1 = j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s - l_s \wedge$$

$$k_2 = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\substack{(n_i-j_{ik}-\mathbb{k}_1+1) \\ (n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}} \sum_{\substack{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2 \\ n_{sa}=n-j^{sa}+1}} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - j_{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - l_{ik})!} \cdot \frac{(l_{sa} - j^{sa})!}{(l_{sa} - j^{sa})! \cdot (n - j^{sa} - n - l_{sa} - s)!} \cdot \sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{n+\mathbb{k}}^n \sum_{\substack{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1) \\ (n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D > n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{sa}^{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$



$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{j_s=1}^{(\cdot)} \right)$$

$$\sum_{n_i=n+k}^n \sum_{n_{ik}=n+k_2-j_{ik}+1}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-k_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) + \left( \sum_{k=1} \sum_{j_s=1}^{(\cdot)} \right)$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})}$$

$$\sum_{n_i=n+k}^n \sum_{n_{ik}=n+k_2-j_{ik}+1}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{k=1}^{(\cdot)} \sum_{(j_s=1)}^{(\cdot)} \sum_{j_{sa}^{ik} (j^{sa}=j_{sa})} \sum_{n_i=n+\mathbb{k} (n_{ik}=j_{ik}-\mathbb{k}_1+n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{sa}^s - j_s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + j_s + j_{sa}^{ik} - 1 \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s$$

$$l_{ik} - j_{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa} - 1 \wedge j_{sa} - j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$j_{sa} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(\cdot)} \sum_{(j_s=1)}^{(\cdot)} \right)$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \left( \frac{(l_{ik} - j_{sa} - 1)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - l_{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
 \end{aligned}$$

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$$\sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik} (j^{sa}=j_s)}^{(\ )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\ )} \sum_{(n_{sa}=n_{ik}+j_{sa}-j^{sa}-\mathbb{k}_2)}^{(\ )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{s-\mathbb{k}_1})!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{ik})!} \cdot \frac{(n - l_i)!}{(n - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = 1 \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0)$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^{s-\mathbb{k}_1}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_2: (z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik} (j^{sa}=j_{sa})}^{(\ )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot \\
 & \left( \sum_{k=1}^{(j_s)} \binom{(\cdot)}{j_s} \right) \\
 & \sum_{i_k=1}^{l_{ik}} \sum_{j_{ik}=j_{ik}^{ik}+1}^{j_{ik}^{ik}+1} (j^{sa}=j_{ik}^{sa}-j_{sa}^{ik}) \\
 & \sum_{n+l_k}^n \sum_{(n_{ik}=n-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \sum_{n_{sa}=n-j^{sa}+1}^{n_{sa}+j_{sa}-j^{sa}-l_{k_2}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(j_s)} \sum_{(j_s=1)}^{(\cdot)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{(j^{sa}=j_{sa})}^{(\cdot)}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - \dots)!}$$

$((D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$l_i \leq D + s - n) \vee$

$(D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{sa} - j_{sa} + 1 > l_s \wedge$

$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n)) \wedge$

$(D \geq n < n \wedge l_s = 0 \wedge$

$j_{sa}^i \leq j_{sa}^i - 1) \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^i, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s, j_{sa}^i, j_{sa}^i\} \wedge$

$l_i > 3 \wedge j_{sa}^i \leq s + \mathbb{k} \wedge$

$\mathbb{k}_2: z \leq 2 \wedge \mathbb{k}_2 \leq \mathbb{k}_2) \Rightarrow$

$$fz \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{\binom{()}{j_s=1}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{j_{sa}^s=j_{sa}}^{(l_{sa})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - j_{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - l_{k_1})!} \cdot$$

$$\frac{(l_{sa} - j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{ik} - j^{sa})!} \cdot$$

$$\frac{(n + j_{sa} - n - s)!}{(n + j_{sa} - n - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{( )} \sum_{(j_{sa}^{sa}=j_{sa})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{( )} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \vee$$

$$(D \geq n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$\left( \sum_{k=1}^{l_{ik}} \sum_{j_s=1}^{(j_s)} \dots \right) +$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{j^{sa}=j_{sa}+1}^{(l_{sa})}$$

$$\sum_{n=\mathbb{k}}^{(n_i - \mathbb{k}_1 + 1)} \sum_{(n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \sum_{n_{sa} = n - j^{sa} + 1}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!}$$

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$$\sum_{n_i=n+l_k}^n \sum_{\substack{(n_i-j_{ik}-l_{k_1}+1) \\ (n_{ik}=n+l_{k_2}-j_{ik}+1)}} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - j_{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - l_{ik})!} \cdot \frac{(l_{sa} - l_{sa} - j_{sa})!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{ik} - j^{sa})!} \cdot \frac{(D - j_{sa} - l_{sa} - s)!}{((n + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!)} \cdot \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \sum_{j_{ik}=j_{sa}^{ik}}^{(\quad)} \sum_{(j_{sa}=j_{sa})}^{(\quad)} \sum_{n_i=n+l_k}^n \sum_{\substack{(n_{ik}=n_i-j_{ik}-l_{k_1}+1) \\ (n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$1 \leq n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = (\mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=0}^{\lfloor \frac{n - l_{sa}}{2} \rfloor} \sum_{j_s=1}^{\binom{n - l_{sa} - k}{2}} \sum_{j_{sa}^{ik} (j^{sa} = j_{sa})} \sum_{n_i = n + k}^n \sum_{n_{ik} = n_{ik} - j_{ik} - k_1 + j_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2} \frac{(n_i + j_{sa}^s - j_s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} = j^{sa} \leq n - l_{sa} - s$$

$$l_{ik} = j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D > n \wedge l_{sa} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\{j_s = 1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(\ )} \sum_{(j^{sa}=j_s)}^{(\ )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-1}^{n_{ik}+j_{ik}-j^{sa}-1}$$

$$\frac{(n_i - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik})! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(n_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(\ )} \sum_{(j^{sa}=j_s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{(\ )} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge I = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1}^{\binom{D}{j_s}} \sum_{(j_s=j_{ik}+l_s-l_{ik})} \sum_{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j_{sa}^{ik}+j_{sa}-j_{sa}^i)} \sum_{(n_i=n+k)} \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_{is}+j_{sa}-k_1)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left( \sum_{k=1}^{\binom{D}{j_s}} \sum_{(j_s=j_{ik}+l_s-l_{ik})} \right)$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=j_{sa}+2)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)!(n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}
 \end{aligned}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s)!}{(j_{ik} + l_{sa} - j^{sa} - j_s)! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \right) \cdot \\
 & \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\quad)} \\
 & \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{(j^{sa} = j_{sa} + 1)}^{(\quad)} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(\quad)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(\quad)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

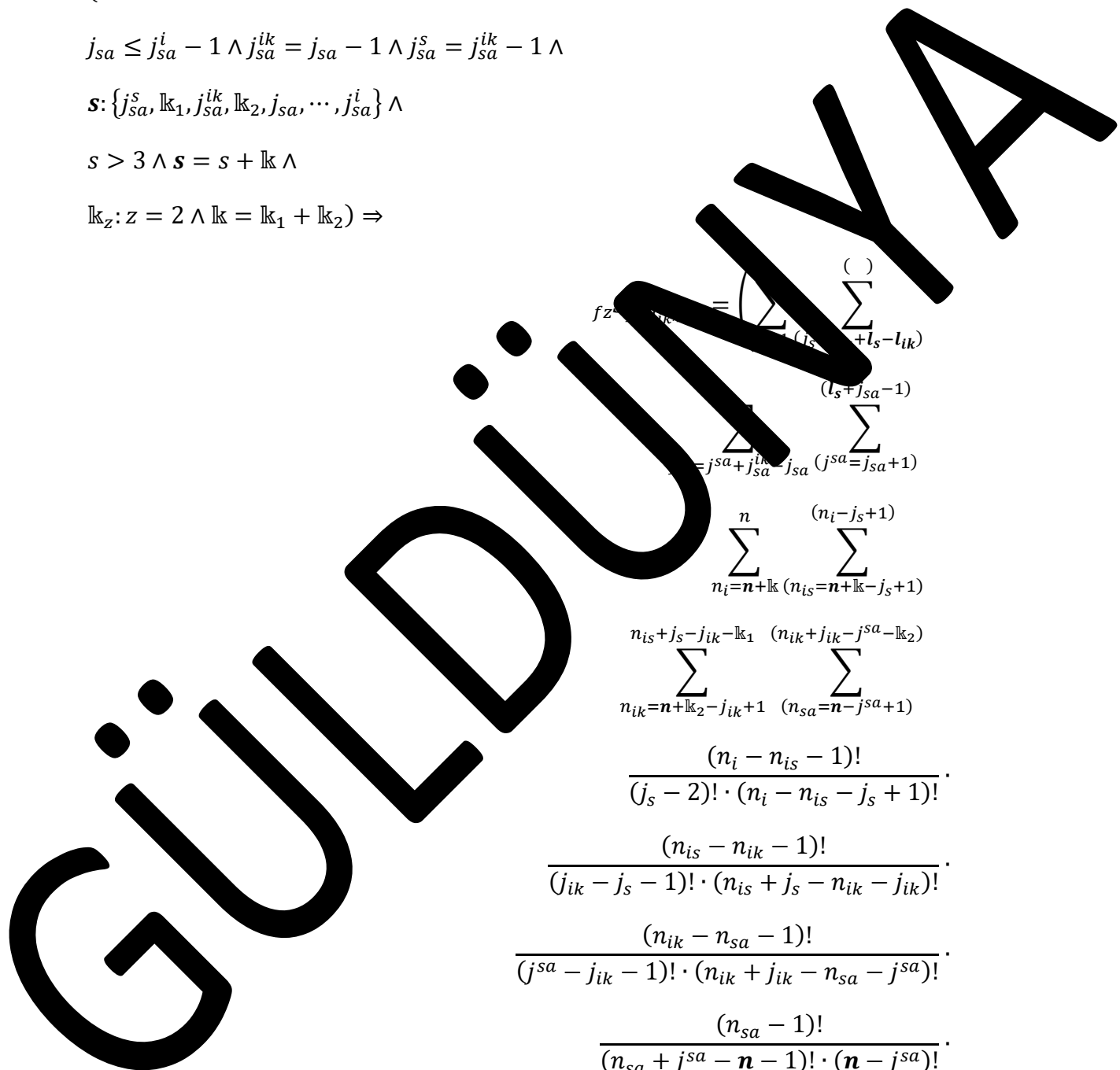
$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$



$$fz = \sum_{(j_s + l_s - l_{ik})}^{(n)} \sum_{(l_s + j_{sa} - 1)} \sum_{(j^{sa} + j_{sa}^{ik} - j_{sa})}^{(j^{sa} = j_{sa} + 1)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$



$$\begin{aligned}
 & \left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \right. \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=j_{sa}+j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j_{sa}+j_{ik}-l_{k_2})}^{(n_{sa}+j_s-j_{ik}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
 \end{aligned}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(n_i + j_{sa}^{ik} - j_s - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_s)! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(n + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )} \\
 & \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - 1)} \sum_{(j^{sa} = j_{sa} + 1)}^{( )} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{sa}} = \left( \sum_{k=1}^{j_s} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_{ik}} \sum_{(j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \right. \\
 & \left( \sum_{k=1}^{l_{ik}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(n_i-j_s+1)} \right. \\
 & \sum_{j_{ik}=j_{sa}+1}^{l_{ik}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}+l_{k_2}-j_{ik}+1}^{n_{ik}+l_{k_2}-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_{ik}-l_{k_1}}^{n_{is}+j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_s-l_{k_2})}^{(n_{ik}+j_s-l_{k_2})} \\
 & \sum_{n_{ik}+l_{k_2}-j_{ik}+1}^{n_{ik}+l_{k_2}-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_i-j_s+1)} \\
 & \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \right. \\
 & \left. \frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \right. \\
 & \left. \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \right. \\
 & \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \right. \\
 & \left. \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \right. \\
 & \left. \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \right. \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}
 \end{aligned}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k2})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k1})!}{(n_i - n - l_{k1} - l_{k2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(n + l_{sa} - j_{sa} - l_i)!}{(D + j_{sa}^s - l_{sa})! \cdot (n + l_{sa} - j_{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - l_i$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik}^{i-1} \leq j_{ik} \leq j_s + 1 + j_{sa} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - l_{k1} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - l_i) \wedge$$

$$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{i-1} + 1 \wedge j_{sa}^s = j_{sa}^{i-1} - 1 \wedge$$

$$s: \{l_{k1}, j_{sa}^{ik}, l_{k2}, j_{sa}^{i-1}, j_{sa}^i\}$$

$$j_s > 3 \wedge l_{sa} = s + l_k \wedge$$

$$l_{kz}: z = 2 \wedge l_{kz} = l_{kz} - l_{k2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{l_s} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)! \cdot (l_s - j_s)! \cdot (j_s - 2)!}$$

$$\left( \frac{(D + j_{sa} - j^{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \right) +$$

$$\left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - j_{sa}^{ik} - j_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \sum_{j_{sa}^{ik}=1}^{l_s + j_{sa} - 1} \sum_{j_{sa}^{ik}=1}^{(n_{sa} - j_{sa}^{ik} - j_{sa})} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{sa}-j_{sa}^{ik}-j_{sa})} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$l_s \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$





$$\begin{aligned}
 & \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(l_{sa})}^{(l_{sa})} (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1) \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}=n+l_k-j_s+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{is}+j_{sa}-j_{sa}^{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{is}+1)!}{(j_{ik}-j_s+1)!(n_{is}+j_{sa}-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}-j_{ik}+1)!(n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)!(n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+l_{ik}-j^{sa}-l_{ik})!(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} \right) - \\
 & \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s=2)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa})}^{(j^{sa})} (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}) \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
 \end{aligned}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa})!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(l_s)} \sum_{j_s=2}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(j_s+l_{ik}-l_s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(j_s+l_{ik}-l_s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left( \sum_{k=1}^{(l_s)} \binom{l_s}{j_s - k} \right)$$

$$\binom{l_{sa}}{j_{sa} - k}$$

$$j_{ik} = j_s + k, \quad l_s (j_{sa} = j_{ik} + j_{sa} - k)$$

$$\binom{n_i - j_s + 1}{n_i = n + k}$$

$$\binom{n_i - n_{is} + 1}{n_{is} = n + k - j_s + 1}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_i - j_{ik} - k_1} \binom{n_{ik} + j_{ik} - j^{sa} - k_2}{n_{sa} = n - j^{sa} + 1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) \cdot$$

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$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{( )} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_s)!}{(n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s = n - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{s_1} - 1 \leq j_{ik} \leq n + j_{sa}^{s_1} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik} \leq j_{sa}^{s_1} + n + j_{sa} - s \wedge$

$l_{k_1} - j_{sa}^{ik} + 1 = l_{k_1} \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$D + l_{k_1} - n < l_{sa} \leq D + l_s + l_{k_1} - n - 1 \wedge$

$D \geq n \wedge l = l \wedge I = l_k > 0 \wedge$

$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{s_1} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, l_{k_1}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$

$> 3 \wedge s + l_k \wedge$

$l_{k_z}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \right)$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}} (l_{ik}+j_{sa}-j_{sa}^{ik}) \sum_{(j_{sa}=l_{sa}+n-D)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{is} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (n - j_{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} (l_{ik}+j_{sa}-j_{sa}^{ik}) \sum_{(j_{sa}=l_{sa}+n-D)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (l_{sa} + j_{sa}^{lk} - j_{sa} - l_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{j_s=1}^{j_s} \sum_{j_s=j_{ik}+l_s-l_{ik}}^{j_s} \cdot \\
& \sum_{j_{sa}^{lk}+1}^{(n+j_{sa}-s)} (j^{sa}=l_{ik}+j_{sa}-j_{sa}^{ik}+1) \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}} \sum_{(j^{sa}=l_{sa}-j_{sa}^{ik})} \sum_{(j_s=j_{ik}+l_s-l_{ik})} \sum_{(l_{ik}+j_{sa}^{ik}-j_{sa}^{ik})}$$

$$\sum_{(n_i-j_s+1)} \sum_{(n_i+l_{sa}+l_{ik}-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1}} \sum_{(n_{sa}=l_{sa}-j_{sa}^{ik}-l_{k_2})}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - l_{k_1} - l_{k_2})! \cdot (n_i + l_{k_1} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > l_s \wedge l_s \leq n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_s \leq j^{sa} \leq j_{sa} + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - 1 \leq l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(n_i < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{\mathcal{S}_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=n+\mathbb{k}-j_s+1)}^{(n-j_s+1)} \frac{(n_{is}+j_s-j_{ik})!}{(j_{ik}-j_s-1)!} \frac{(n_{ik}+j_{ik}-j^{sa})!}{(n_{is}+j_s-n_{ik}-j_{ik})!} \frac{(n_{sa}+j^{sa}-n-1)!}{(n_{sa}-n_{sa}-1)!} \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \right) +$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} +$$

$$\left( \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(j_{ik} + j_{sa}^{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_s+j_{sa})}^{(\mathbf{n}+j_{sa}-s)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa} - l_{sa})!}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j^{sa}=l_i+n+j_{sa}-D-s} \binom{l_{ik}+j_{sa}-j_{sa}^{ik}}{j_{sa}^{ik}-l_{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \binom{}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$l_i \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S j_s j_{ik} j_{sa} = \left( \sum_{k=1}^{l_s} \binom{D+l_s-j_{sa}}{j_{sa}-j_{ik}+l_{ik}} \binom{l_{ik}}{j_{sa}-j_{ik}} \binom{n_i-j_s+1}{n_i+n+\mathbb{k}-j_s+1} \binom{n_i+j_s-\mathbb{k}-\mathbb{k}_1}{n_{ik}=n+\mathbb{k}_2-j_{ik}+1} \binom{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}{n_{sa}=n-j_{sa}+1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \left( \sum_{k=1}^{l_s} \sum_{j_{sa}=j_{ik}+l_s-l_{ik}}^{( )}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_s+1)!(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}+1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+l_{ik}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{\binom{()}{}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{()}{}} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s)!}{(j_{ik} + l_{sa} - j^{sa} - j_s)! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \right) \cdot \\
 & \sum_{k=1}^{l_{ik}} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{()} \\
 & \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_{ik}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{()} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^n \sum_{(n_{is} = n_{is} + k_1 - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{()} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_a^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} S_{j_s, j_{ik}} &= \sum_{k=1}^{( )} (j_s = j_{ik} + l_s - l_{ik}) \\ &= \sum_{l_s = l_{sa} + n + j_{sa}^{ik} - 1}^{( )} \sum_{( )} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}) \\ &= \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\ &= \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\ &= \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\ &= \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\ &= \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \right)$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}^{ik}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)}$$

$$(n_{is}+1)$$

$$(n_{is}+n_{ik}+1)$$

$$(n_{is}+j_s-j_{ik}-l_{k1}+n_{ik}+j_{ik}-j^{sa}-l_{k2})$$

$$n_{ik}=j_{sa}^{ik}-j_{ik}+1$$

$$(n_{is}-1)!$$

$$(j_s-2)! \cdot (n_{is}-n_{is}-j_s+1)!$$

$$(n_{is}-n_{ik}-1)!$$

$$(j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!$$

$$(n_{ik}-n_{sa}-1)!$$

$$(j_s-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!$$

$$(n_{sa}-1)!$$

$$(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!$$

$$(l_s-2)!$$

$$(l_s-j_s)! \cdot (j_s-2)!$$

$$(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!$$

$$(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!$$

$$(D + j_{sa} - l_{sa} - s)!$$

$$(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)! +$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

$$l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1 \quad (n+j_{sa}-s)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1} \sum_{(j^{sa}=l_{sa}+n-D)}$$

GÜLDÜZÜMÜ

$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+\mathbb{k}_2-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-\mathbb{k}_1} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} - n_{s_a} - j^{s_a})!} \cdot \\
 & \frac{(n_{s_a} + j^{s_a} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{s_a} + j_{s_a}^{i_k} - l_{i_k} - j_{s_a})!}{(j_{i_k} - l_{s_a} - j_{s_a}^{i_k} - l_{i_k} - j_{s_a})!} \cdot \frac{(j^{s_a} + j_{s_a}^{i_k} - j_{i_k} - j_{s_a})!}{(j^{s_a} + j_{s_a}^{i_k} - j_{i_k} - j_{s_a})!} \\
 & \left. \frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j_{s_a} - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!} \right) - \\
 & \sum_{k=1}^n \sum_{(j_s=j_{i_k}+l_s-l_{i_k})}^{()} \\
 & \sum_{j_{i_k}=l_i+n+j_{s_a}^{i_k}-D-s}^{l_{i_k}} \sum_{(j^{s_a}=j_{i_k}+j_{s_a}-j_{s_a}^{i_k})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n_{i_s}+j_s-j_{i_k}-\mathbb{k}_1} \sum_{(n_{s_a}=n_{i_k}+j_{i_k}-j^{s_a}-\mathbb{k}_2)}^{()}
 \end{aligned}$$

$$\frac{(n_i + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k})!}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)} \sum_{j_{ik} = j_s + l_{ik} - l_s}^{( )} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \right)$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!}$$

$$\left( \sum_{k=1}^{l_{sa} - j_{sa}^{ik}} \sum_{l=1}^{n - l_{sa} - n - D - j_{sa}^{ik}} \right)$$

$$\sum_{i_k = j_s + l_{ik}}^{n - j_s} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)$$

$$\sum_{n_i = n + k}^n \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} (n_{is} = n + k - j_s + 1)$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n - j_{ik} - k_1} \sum_{(n_{ik} + j_{ik} - j^{sa} - k_2)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} (n_{sa} = n - j^{sa} + 1)$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{sa}+n-D)}$$

$$\sum_{i=n+l_k}^n \sum_{(n_{is}=i+1)}$$

$$\sum_{n_{ik}=l_{k2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{ik}} \sum_{(n_{sa}=j^{sa}+1)}$$

$$\frac{(n_{is}-1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{ik}-1)!}{(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_j)}{(D + j^{sa} + s - n - l_s - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$D + j_{sa} - n < l_{sa} \leq D + j_{sa} - n - 1$

$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1$

$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^s, \mathbb{k}_2, j_{sa}^s, \dots, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \left( \frac{(n + j_{sa} - 1 - s)!}{(D + j^{sa} - n - 1)! \cdot (n_{sa} - j^{sa} - s)!} \right) + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜZMÜŞA

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k_1=1}^{(l_{sa} + n_{is} - j_{sa})} \sum_{(j_s=2)}^{(n + j_{sa} - s)} \\
& \sum_{(j_{ik} + l_{ik} - l_s) - (j^{sa} - n - D)}^{(n + j_{sa} - s)} \\
& \sum_{n_i = n + k_1}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k_1 - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{( )} \sum_{(n_{ik}+j_{ik}-j^{sa}=\dots)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \dots)! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik} - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - \dots)!}{(D + s - \dots - l_i - \dots)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq \dots - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq \dots + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > \dots \wedge l_{sa} + j_{sa}^{ik} - j_{sa} \leq l_{ik} \wedge$$

$$l_{ik} \geq D + j_{sa}^{ik} - n \wedge \dots \leq D + s - n \wedge$$

$$D \geq n < \dots \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$3 \wedge \dots - s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa} + 1)}^{( )} \\
 & \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_s + j_{sa} - 1)} \sum_{(j^{sa} = j_{sa} + 1)}^{( )} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{( )} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^s j_s j_{sa} = \sum_{k=1}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{(j_s=2)}^{(j_s + j_{sa}^{ik} - 1)} \sum_{j_{sa}^{ik} + 1}^{(j_{sa} = j_{ik} + l_{sa} - l_{ik})} \sum_{(n_i = n + \mathbb{k})}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1)}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j_{sa} + 1)}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \frac{\sum_{j_s=2}^{\Delta} \frac{(l_s)}{\sum_{j_{ik}=1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \frac{(n_i - j_s + 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}}{\sum_{j_{ik}=1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \frac{(n_i - j_s + 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-k_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - 1)!}{(D + j_{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa} - j_s \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$l_{ik} \leq j_{sa}^{ik} - n \leq D + s - n$

$(n \geq n < n \wedge k = k) \Rightarrow$

$j_{sa} - j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$

$\{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s$

$k_z \cdot z = z \wedge k = k_1 + k_2 \Rightarrow$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\begin{aligned}
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + j_{sa}^{ik} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{( )} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{( )} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{( )} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}
 \end{aligned}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$S_{i_s, j_s} = \left( \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \right)$$

$$\sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_s + j_{sa} - 1)} \sum_{(j_{sa} = j_{sa} + 1)}^{(l_s + j_{sa} - 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \left( \sum_{k=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{i_s=2}^{(l_s - 1)} \right) \\
 & \frac{(l_s - 1)!}{(j_s - 1)!} \sum_{j_{sa}=j_{sa}+2}^{(j_{sa}+l_{ik})} \\
 & \sum_{i_s=2}^{(l_s - 1)} \sum_{i_s=n+l_k-j_s+1}^{(l_s - i_s + 1)} \\
 & n_{i_s+l_k} \cdot n_{i_s+l_k} (n_{i_s} = n + l_k - j_s + 1) \\
 & n_{i_s+l_k} \cdot j_{ik} - l_{k_1} (n_{ik} + j_{ik} - j^{sa} - l_{k_2}) \\
 & n_{ik} = n_{i_s} - j_{ik} + 1 (n_{sa} = n - j^{sa} + 1) \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_s)}^{(l_{sa})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_s+1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{sa}=n-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
 \end{aligned}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = j_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{\binom{(\cdot)}{j_s=j_{ik}-j_{sa}^{ik}+1}} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{\binom{(\cdot)}{j^{sa}=j_{ik}+l_{sa}-l_{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(n_i-j_s+1)}{n_{is}=n+\mathbb{k}-j_s+1}}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}{n_{sa}=n-j^{sa}+1}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa})!} \right) + \\
 & \left( \sum_{j_{ik}=2}^{(j_{ik}-j_{sa})} \sum_{(j_s=2)}^{(j_s-2)} \right) \\
 & \sum_{j_{sa}=j_{sa}^{lk}+1}^{l_s+j_s-1} \sum_{(j_s=2)}^{(j_s-2)} \\
 & \sum_{n_i=n+lk}^n \sum_{(n_{is}=n+lk-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+lk_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-lk_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-lk_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s = z)} \frac{(l_s)}{j_s = z} \\
 & \sum_{j_{ik} = l_s + j_{sa}^{ik}}^{l_{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j_s = z)} \frac{(l_s)}{j_s = z} \\
 & \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{(n_{is} + j_s - l_{k_1} - (n_{ik} + j_{sa} - l_{k_2}))}^{(n_{is} + j_s - l_{k_1} - (n_{ik} + j_{sa} - l_{k_2}))} \sum_{(n_{ik} + j_{sa} - l_{k_2})}^{(n_{ik} + j_{sa} - l_{k_2})} \\
 & \sum_{(n_{ik} + l_{k_2} - j_{ik} + (n_{sa} = n - j^{sa} + 1))}^{(n_{ik} + l_{k_2} - j_{ik} + (n_{sa} = n - j^{sa} + 1))} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{sa} = n - j^{sa} + 1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) - \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}
 \end{aligned}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k2})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k1})!}{(n_i - n - l_{k1} - l_{k2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - 1)!}{(D + j^{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_{sa}^{ik} \leq j_{sa}^i - 1, j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{l_{k1}, j_{sa}^{ik}, l_{k2}, j_{sa}^i, j_{sa}^s\}$$

$$z > 3 \wedge s = s + l_k \wedge$$

$$l_{kz}: z = 2 \wedge l_{kz} = l_{kz} - l_{k2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=2)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \left( \frac{(D + j_{sa} - j^{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \right) \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{\binom{D + j_{sa} - l_{sa}}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - l_{sa})!}}{\binom{l_s}{j_s=2}} \cdot \\
& \sum_{j_{ik} + j_{sa}^{ik} - 1}^{n} \sum_{j^{sa} = j_{ik} + l_{sa} - l_{ik}}^{n_i - j_s + 1} \sum_{n_i = n + k}^{n_i = n + k - j_s + 1} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$n > n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1}^{(j_s + j_{sa} - 1)} \sum_{j_{ik} = j_{sa} + l_{ik} - j_s}^{(l_s + j_{sa} - 1)} \sum_{j_{is} = n - D}^{(n - j_s + 1)} \sum_{n_i = n + k}^{(n_i - j_s + 1)} \sum_{n_{is} = n + k - j_s + 1}^{(n_{is} + j_s - k - k_1)} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j_{sa} - k_2)} \sum_{n_{sa} = n - j_{sa} + 1}^{(n_{sa} - 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)} \right) \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{sa}+n)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{is}-k_2)} \\
 & \frac{(n_{is}-k_1-1)!}{(j_s-2)! \cdot (n_i-j_s+1)!} \cdot \frac{(n_{is}-k_2-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-k_1-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_{sa})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(\mathbf{n} + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) \cdot \\
 & \sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j} = \left( \sum_{k=1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \right)$$

$$\sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{( )} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{( )}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \left( \sum_{k=1}^{j_{ik} - j_{sa}^{ik}} \sum_{i_s=2}^{j_{ik} - j_{sa}^{ik}} \right) \\
 & \sum_{j_{ik}=l_{sa} - j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - 1} \sum_{i_s=1}^{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik}} \sum_{i_k=1}^{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik} + 1} \\
 & \sum_{n_{is}=1}^{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik} + 1} \sum_{n_{ik}=1}^{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik} + 1} \sum_{n_{sa}=1}^{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik} + 1} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_2}} \sum_{(n_{sa}=n-j^{sa})}^{n_{ik}+j_{ik}-l_{k_2}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + j_{sa}^{ik} + j_{sa} - n$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^s, j_{sa}^s, j_{sa}^s, \dots, j_{sa}^s\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
 & \left( \frac{(n + j_{sa} - 1 - s)!}{(D + j^{sa} - n - 1)! \cdot (n - i_{sa} - j^{sa} - s)!} \right) + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜMÜK

$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{i=1}^{(l_{sa} + n_{sa} - j_{sa})} \sum_{(j_s=2)}^{(j_s)} \cdot \\
 & \sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \cdot \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) -
 \end{aligned}$$

GÜLDÜZYAN

$$\sum_{k=1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_i)}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa})}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - l_{k2})!}{(n_i - n - l_{k1} - l_{k2})! \cdot (n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - l_{k2})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - s)!}{(n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s = n - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}^{ik} - j_{sa} \leq j_{ik} < n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > 0 \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq n + l_s + j_{sa} - n - 1 \wedge$

$n \geq n \wedge l = l > 0 \wedge$

$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, l_{k1}, l_{k2}, j_{sa}, \dots, j_{sa}^i\} \wedge$

$> 3 \wedge s + l_k \wedge$

$l_{kz}: z = 2 \wedge l_k = l_{k1} + l_{k2} \Rightarrow$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}\right)$$



$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i-1)}{(j_s-2)(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_s)(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_s-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)} \right) \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜNYA

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{j_i=1}^{(l_s + j_{sa})} \sum_{j_{sa}^{ik}=1}^{(j_{sa}^{ik} + 1)} \sum_{j_{sa}^{s_1}=1}^{(j_{sa}^{s_1} + 1)} \sum_{j_{sa}^{s_2}=1}^{(j_{sa}^{s_2} + 1)} \sum_{n_{is}+k_1}^{(n_{is}+k_1 - j_s + 1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)} \frac{(n_i + j_{sa}^s + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\geq n < l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$j_s - j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = k \geq 0 \wedge$$

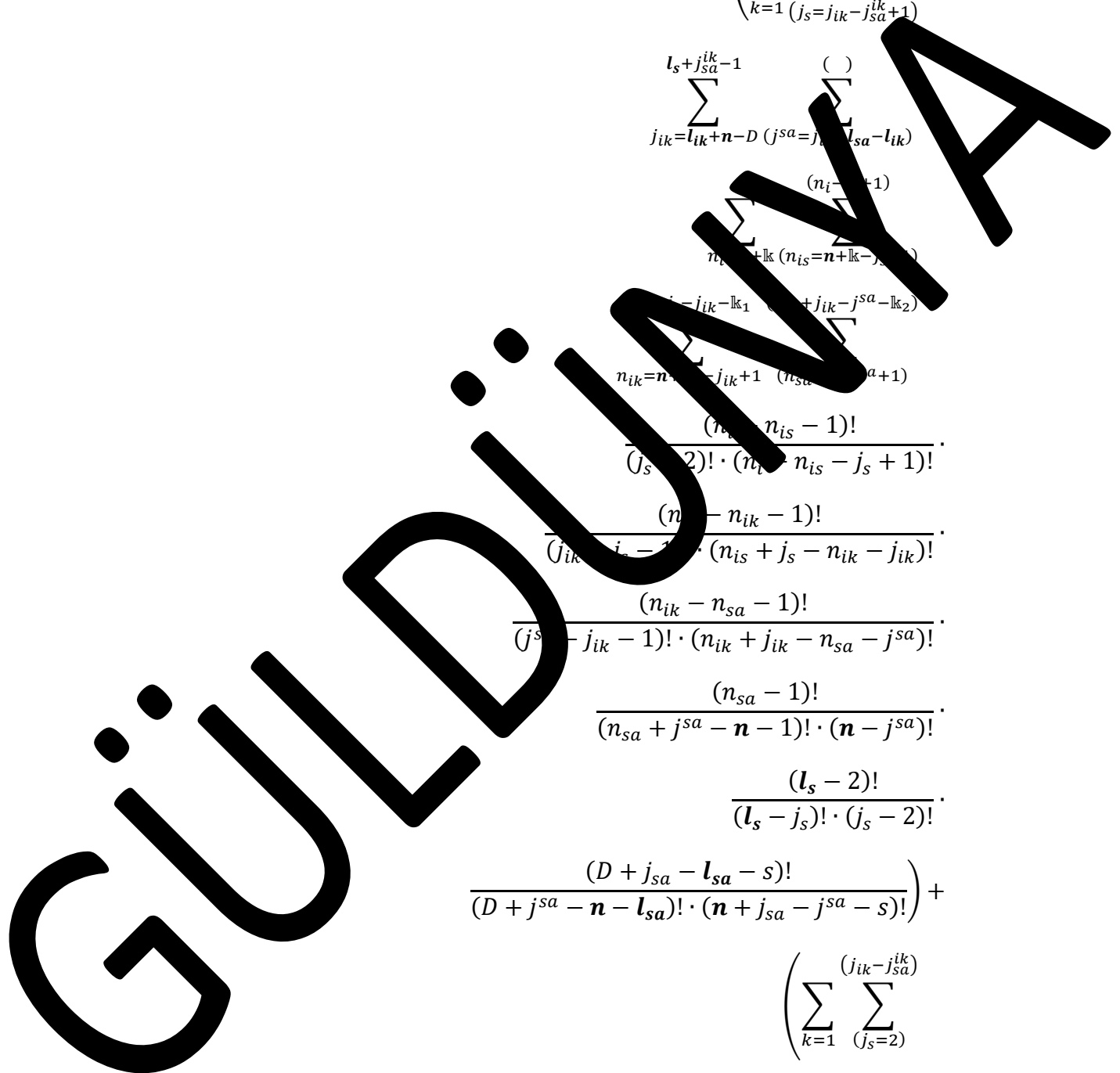
$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \sum_{(n_{ik}+k)}^{(n_{ik}+k)} \sum_{(n_{is}=n+k-j_{sa}^{ik})} \sum_{(j_{ik}-k_1)}^{(j_{ik}-k_1)} \sum_{(j_{ik}-j^{sa}-k_2)} \sum_{(n_{ik}=n_{is}-j_{ik}+1)}^{(n_{sa}-j^{sa}+1)} \frac{(n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) + \left( \sum_{k=1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \right)$$



$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

GÜLDÜZMAYA

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j_s - j_{ik} - j_{sa} - 1)!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_s - j_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{j_{ik} = n + j_{sa} - D - s}^{l_s + j_s - 1} \sum_{(j_s = j_{ik} - j_{sa} + 1)}^{(j_s = j_{ik} - j_{sa} + 1)} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{(j^{sa} = j_{ik} + l_{sa} - l_{ik})} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1}^n \binom{n-D-j_{sa}^{ik}+1}{j_s - k} \sum_{j_{ik}=j_s+j_{sa}-1}^n \binom{n_i - j_s + 1}{j_{sa} = j_{ik} + l_{sa} - l_{ik}} \sum_{n_i=n+\mathbb{k}}^n \binom{n_i - j_s + 1}{n_{is} = n + \mathbb{k} - j_s + 1} \sum_{n_{ik}=n+\mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \binom{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2}{n_{sa} = n - j_{sa} + 1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\begin{aligned}
 & \left( \sum_{k=1} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)} \right. \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_i=j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}=n+k_2-j_{ik}-k_1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(j_{ik}=j_s-k_2)}^{(j_{ik}-j_s-k_2)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}}^{n_{ik}=n+k_2-j_{ik}} \sum_{(n_{sa}=n-j^{sa}+j_{ik})}^{(n_{sa}=n-j^{sa}+j_{ik})} \\
 & \frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-j_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1} \sum_{(j_s=2)}^{(l_{ik}+n-D-j_{sa}^{ik})} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}
 \end{aligned}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})}$$

$$\frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot$$

$$\frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot$$

$$\frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} - n_{s_a} - j^{s_a})!} \cdot$$

$$\frac{(n_{s_a} + j^{s_a} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{i_k} - n_{i_k} - j_{s_a}^{i_k} + 1)!}{(n_{i_k} + l_{i_k} - j_{i_k} - j_{s_a}^{i_k})! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot$$

$$\left( \frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j^s - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!} \right) -$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)}$$

$$\sum_{j_{i_k}=j_s+j_{s_a}^{i_k}-1} \sum_{(j^{s_a}=j_{i_k}+l_{s_a}-l_{i_k})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{i_k}=n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_{s_a}=n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})}^{( )}$$

$$\frac{(n_i + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^{\mathcal{S}_{j_s, j_{ik}, j^{sa}}} = \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(l_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} +$$

$$\sum_{j_{ik}=0}^{l_{ik}} \sum_{j_{sa}^{ik}=0}^{(l_{sa})} \binom{n_{is} + j_s - j_{ik} - l_{k_1} + l_{sa} - l_{ik}}{j_{ik} + l_{sa} + 1} \binom{n_i - j_s + 1}{n_{is} = n + l_{k_2} - j_s + 1}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^n \sum_{n_{sa}=n-j^{sa}+1}^{(n_i-j_s+1)} \binom{n_{is}+j_s-j_{ik}-l_{k_1}}{n_{ik}+j_{ik}-j^{sa}-l_{k_2}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\ )}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{ik} + j_{sa} - \dots)} \sum_{(j_s = j_{sa} + 1)}^{(\ )}$$

$$(n_i + 1)$$

$$\sum_{n + k}^{(n_i = n + \dots + 1)}$$

$$(\ )$$

$$\sum_{n = n_{is} + j_s - k_1}^{(n_{sa} = \dots - j_{sa} - k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$(D - l_i)!$$

$$\frac{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > \dots \wedge l_s \leq D - n - \dots \wedge$$

$$1 < j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge \dots + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_s \leq n + j_s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - \dots \wedge$$

$$(D \geq n < n \wedge I = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_{zS_{j_s, j_{ik}, j^{sa}}} = \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{ik}^{sa})}^{(l_{sa})}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$n_{is} + j_s - j_{ik} - j_{sa} + j_{ik} - j_{sa} - k_2$$

$$\sum_{n_{ik} = n + k_2 - j_{ik}^{sa}} \sum_{(n_{sa} = n - j^{sa})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s = l_s \wedge$

$l_i \leq D + s - n \wedge$

$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$

$s > 3 \wedge s = s + 1 \wedge$

$\mathbb{k}_1 : z = 2 \wedge (\mathbb{k}_1 = \mathbb{k}_1 + 1) \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{\binom{(l_{sa})}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s)!}{(j_{ik} + l_{sa} - j^{sa} - j_s)! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k1} - l_{k2})!}{(n_i - n - l_{k1} - l_{k2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$f^z \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = l_{sa} + n - D)}^{(l_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$



$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} +$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{j_{sa}^{ik}=l_{ik}+j_{sa}-j_{sa}^{ik}+1}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_s)} \sum_{(j_s=j^{sa}+n-D)}^{(n_i+1)}$$

$$\sum_{n+l_k}^{(n_i+n+1)}$$

$$\sum_{(n_i+n+1)}^{(\ )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - l_{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge 1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s) \wedge$$

$$(l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge D + s - n < l_{sa} \leq D + l_s + s - n - 1) \vee$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge 1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_{zS}^{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

$$\frac{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1}{\sum_{j_{ik}=j_{sa}^{ik}}^{(n+j_{sa}^{ik}-s)} (j_{sa}=l_{sa}+j_{sa}^{ik})} \cdot \frac{(n+j_{sa}^{ik}-s)}{(n-j_s+1)}$$

$$\frac{\sum_{n_i=n+k_1}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_i-j_s+1)}{\sum_{n_{ik}=n-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} (n_{ik}+j_{ik}-j_{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_s+1)!(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}+1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+l_{ik}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \cdot \sum_{k=1}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}} \sum_{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}}
 \end{aligned}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa})!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)$$

$$(D \geq n < n \wedge l_s > 1 \wedge \mathbb{k}_z \geq 0 \wedge$$

$$j_s \leq j_{sa} - \mathbb{k}_z \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^s\}$$

$$s > 3 \wedge \mathbb{k}_z = s + \mathbb{k}_1 \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)}^{(j_s-1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(j_s-1)}$$

$$\sum_{n_i=n+\mathbb{k}_z}^n \sum_{(n_{is}=n+\mathbb{k}_z-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(j_{ik} + j_{sa}^{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} \cdot \\
& \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{j_s = j_{sa} + 1}^{l_s} \binom{l_{ik} - j_{sa}^{ik} + 1}{k} \binom{l_s}{j_s} \\
& \sum_{j_{ik} = l_{ik} - l_s}^{l_{ik} - l_s} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}^{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \binom{n}{n_i = n + k} \binom{n_i - j_s + 1}{n_{is} = n + k - j_s + 1} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(n_{ik} = n_{is} + j_s - j_{ik} - k_1)} \sum_{n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)} \binom{n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2}{n - k_1 - k_2} \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
\end{aligned}$$

$$n_{ik} - n_{sa} - 1 > 1 \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, i}^{j_{sa}} = \sum_{k=1}^{(j_{sa}^{ik}+1)} \frac{(j_{sa}^{ik}+1)}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_i - j_s + 1)}{(n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} + j_{sa} - \mathbb{k} - \mathbb{k}_1)}{(n_{is} + j_{sa} - \mathbb{k} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

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$$\begin{aligned}
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_s)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{sa}=n-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{ik} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜZYA

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s = l_s \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$

$(D \geq n < n \wedge l = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$

$s > 3 \wedge s = s + 1$

$\mathbb{k}_2 : z = 2 \wedge (\dots = \mathbb{k}_1 + \dots) \Rightarrow$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - l_{ik} + j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_k} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_i)!} \sum_{k=1}^{l_s+1} \sum_{j_s=j_{ik}+1}^{j_{sa}^{ik}+1} \sum_{l_{ik}=l_{ik}+n-D}^{l_s+1} \sum_{j_{sa}^{ik}=j_{ik}+l_{sa}-l_{ik}}^{j_{sa}^{ik}+1} \sum_{n_{ik}=n_{ik}+k}^{n_{ik}+k} \sum_{n_{is}=n_{is}-j_s+1}^{n_{is}-j_s+1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$\geq n < n \wedge l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$j_s - j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{ik+n-D-j_{sa}^{ik}})} \sum_{(j_s=2)}^{(n+j_{sa}^{ik}-s)} \sum_{j_{ik}=l_{ik+n-D}}^{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \frac{(n_{is}+l_{ik}(n_{is}+n+l_{ik}-j_{sa}^{ik}))!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_s-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik+n-D-j_{sa}^{ik}+1})}^{(l_s)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}^{ik}-s)} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(n+j_{sa}^{ik}-s)}$$

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$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{( )} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )}
 \end{aligned}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s \leq l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > =$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge s_i = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s_i \geq 3 \wedge s = j_{sa} - \mathbb{k} \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(l_s + j_{sa} - 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\begin{aligned}
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(j_{ik} + j_{sa}^{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )} \\
 & \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = l_s + j_{sa})}^{(l_{sa})} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!}$$

$$\sum_{i=0}^{(j_{sa} - j_{sa}^{ik} - j_{sa})} \binom{(j_{sa} - j_{sa}^{ik} - j_{sa})}{i} \sum_{k=0}^{(l_s + j_{sa} - 1 - i)}$$

$$\sum_{j_{sa}^{ik} = j_{sa} + j_{sa}^{ik} - j_{sa}} \binom{(l_s + j_{sa} - 1)}{j_{sa}^{ik} - j_{sa}} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \binom{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}{n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2}$$

$$\frac{(n_{ik} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D > 1) \wedge n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, j_{sa}^{ik}} = \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{s + j_{sa}^{ik} - 1} \sum_{(l_{sa})} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{k=1}^{l_s} \sum_{j_s=j_s - l_{ik}}^{l_s - l_{ik}} \sum_{j_{sa}=j_{sa}^{ik}-1}^{l_s + j_{sa}^{ik} - 1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_s - j_{ik} + j_{sa} - j_{sa}^{ik}} \sum_{n_{is}=n_{is}+k}^{n_{is}+k} \sum_{n_{is}=n_{is}+k-j_s+1}^{n_{is}+k} \sum_{k_1=0}^{n_{is}+j_s-j_{sa}^{ik}-k_1} \sum_{k_2=0}^{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$j_s - j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f^z S_{j_s, j_{sa}} = \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{(j_{ik}=j_s+l_{ik})}^{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(j_{sa}=j_s-j_{sa}-j_{sa}^{ik})}$$

$$\sum_{i=0}^n \sum_{n+l_k}^{(n_{is}=n+l_k+1)}$$

$$\sum_{n_i=n_{is}+j_s-l_{ik_1}-l_{ik_2}}^{(n_{is}=n+l_k+1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

- $((D \geq n < n + 1 \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$
- $D + j_{sa} - n - l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$
- $D - s - 1 \leq l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$
- $(D \geq n < n + 1 \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$
- $D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z = \sum_{j_{ik}=j_{sa}^{ik}+1}^n \sum_{j_s=j_{ik}+l_s-l_{ik}}^{j_{ik}+j_{sa}^{ik}-j_{sa}} \sum_{j_{sa}^s=l_{sa}+n-D}^{l_s+j_{sa}-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{( )} (j_s = j_{ik} + l_s - l_{ik}) \\
 & \sum_{j_{ik} = j_{sa}^{ik} - 1}^{(l_s + j_{sa}^{ik} - 1 - (j_s - l_{ik}))} (j^{sa} = l_s + j_{sa}) \\
 & \sum_{n_{ik} = n - j_{ik} + 1}^{(j_s + 1)} (n_{is} = n + k - j_s + 1) \\
 & \sum_{n_{ik} = n - j_{ik} + 1}^{(n_{is} + j_{ik} - k_1 - l_{ik} + j_{ik} - j^{sa} - k_2)} (n_{sa} = n - j^{sa} + 1) \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
 \end{aligned}$$

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$$\sum_{k=1}^{\binom{D-n}{j_s=j_{ik}+l_s-l_{ik}}} \sum_{\substack{l_{ik}+j_{sa}-j_{sa}^{ik} \\ j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa} \quad (j^{sa}=l_i+n+j_{sa}-D)}} \sum_{n_i=n+k}^n \sum_{n_{is}=n-k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{\binom{D-n}{n_{ik}+j_{ik}-j^{sa}}} \frac{(n_i+j_{ik}+j_{sa}^s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - n)!}{(D - n + s - l_i - j_s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge \\ & D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge \\ & (D + s - n - l_i \leq D + l_i + s - n - j_{sa}) \vee \\ & (D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\ & D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee \\ & (D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge \end{aligned}$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j_{sa}}} = \sum_{k=1}^{( )} (j_s = j_{ik} + l_s - l_{ik})$$

$$l_{sa} + j_{sa}^{ik} - D - j_{sa} \quad (n + j_{sa} - s)$$

$$j_{ik} - l_{ik} + 1 \quad (j^{sa} = l_{sa} + n - D)$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(n+j_{sa}^{ik}-s)}^{(n-j_s+1)}$$

$$\sum_{(n_{ik}+j_s^{sa}-l_{k_1})}^{(n_{ik}+j_s^{sa}-l_{k_2})} \sum_{(n_{ik}+j_s^{sa}-l_{k_2}-j_{ik}+1)}^{(n_{ik}+j_s^{sa}-l_{k_2})} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_i-j_s+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

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$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}} \sum_{\binom{(\cdot)}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+k}^n \sum_{\binom{(n_i-j_s+1)}{n_{is}=n+k-j_s}} \binom{(\cdot)}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{sa}-k_2}} \binom{(\cdot)}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - n + 1)!}{(D + j^{sa} + s - n - j_{sa} - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - j_{sa}^{ik} \wedge$$

$$D - s - n < l_s \leq D + l_{sa} + s - n - j_{sa} \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(l_{sa} + j_{sa} - D - j_{sa})} \frac{1}{(j_s - k)!} \cdot \sum_{i=j_s+l_{ik}}^{(n+j_{sa}-s)} \frac{1}{(n-D-i)!} \cdot \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \frac{1}{(n_i-j_s+1)!} \cdot \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_{is}+j_s-k-\mathbb{k}_1)} \frac{1}{(n_{is}+j_s-k-\mathbb{k}_1)!} \cdot \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{1}{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)!} \cdot \sum_{n_{sa}=n-j_{sa}+1}^{(n_{sa}-n_{is}-1)} \frac{1}{(n_{sa}-n_{is}-1)!} \cdot \frac{1}{(j_s-2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{1}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{1}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{1}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{1}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{1}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{1}{(D + j_{sa} - l_{sa} - s)!} \cdot \frac{1}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^k)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}^k}^{(n_{is}+j_s-j_{ik}^k-j_{sa}+j_{ik}^k-j_{sa}-k_2)} \\
 & \sum_{(n_{sa}=n-j^{sa})} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \\
 & \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(\quad)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$

$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$

$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$

$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa}^{ik} - n - 1)) \wedge$

$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 2 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{l_{sa}, l_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j^{sa} - j_s - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa} + 1)}^{( )} \\
& \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_s + j_{sa} - 1)} \sum_{(j^{sa} = l_i + n + j_{sa} - D - s)}^{(l_s + j_{sa} - 1)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{( )} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{( )} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} ( )$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)!(j_{ik} - j_s - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n_{sa} - 1)!(n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{i_{ik}=l_s+j_{sa}^{ik}-s}^{j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1, \dots)}$$

$$\sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_s + j_{sa}^{ik} - 1} \dots$$

$$\sum_{(n_i - j_s + 1, \dots)} \sum_{(n_i - j_s + 1, \dots)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{ik} - k_1}^{( )} \sum_{(n_{sa}^{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - k_1 - k_2)! \cdot (n + k_1 + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa}^s + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_i - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - s < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D + j_{sa}^{ik} - s < n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^S \sum_{j_s=2}^{j_s} \sum_{j_{ik}=n+l_s-j_{sa}^{ik}}^{n+l_s-j_{sa}^{ik}-1} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{n+l_s-j_{sa}^{ik}-1} \sum_{n_i=n+l_s}^n \sum_{n_{is}=n+l_s-j_s+1}^{n_i-j_s+1} \sum_{n_{ik}=n+l_s-j_{ik}-\mathbb{k}_1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n_{is}+1)}^{(n_{is}+1)}$$

$$\sum_{n_{ik}=j_{ik}+j_{sa}^{ik}-1}^{n_{is}+j_s-j_{ik}-l_{sa}^{ik}} \sum_{(j_{ik}+j_{ik}-j^{sa}-l_{sa}^{ik})}^{( )}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(n_{is} - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l_s - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > \dots \wedge$

$l_i \leq D + s - n \wedge$

$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1$

$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^s - \mathbb{k}_2, j_{sa}^s - j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - l_s - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa})} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z S_{j_s, j_{sa}^{ik}} = \sum_{k=1}^{(j_s)} (j_s = j_{ik} + l_s - l_{ik})$$

$$\sum_{j_s}^{(l_{sa})} \sum_{j_{sa}^{ik} + l_{ik} - l_{sa}}^{(j_{sa} = j_{sa} + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j_{sa} + 1)}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$



$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa})} \sum_{(j^{sa}=l_i+\dots)}^{(l_{sa})} \sum_{(j_{sa}=D-s)}^{(l_{sa})}$$

$$\sum_{i=n+kk}^n \sum_{(n_i=n+kk+1)}^{(n_i=n+kk+1)}$$

$$\sum_{(j_s=j^{sa}-kk_2)}^{(\ )}$$

$$n_{i_k}=n_{i_s}+j_s-kk_1-kk_2$$

$$\frac{(n_i + j_{ik} + j_{sa} - j_s - s - j_{sa} - kk_1 - kk_2)!}{(n_i - n - kk_1 - kk_2)! \cdot (n_i + j_{ik} + j_{sa} - j_s - s - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + \dots - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} + j_{sa} + 1 \wedge i + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa} \leq j_s \leq n + j_{sa} - 1 \wedge$$

$$l_{ik} - j_s + 1 = l_s \wedge l_{sa} + j_{sa} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - 1 \wedge$$

$$(D - n) \wedge n \wedge I = kk \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^i - 1, j_{sa}^{ik}, kk_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + kk \wedge$$

$$kk_z: z = 2 \wedge kk = kk_1 + kk_2 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})} \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{j^{sa} = j_{sa} + 1}^{(n_i - j_s + 1)} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{is} + j_s - j_{ik} - 1}^{(n_{is} + j_{ik} - n - k_2)} \sum_{n_{ik} = n + k_2 - j_{ik}}^{(n_{sa} = n - j^{sa})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})} \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{j^{sa} = j_{sa} + 1}^{(n_i - j_s + 1)} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1$$

$$(D \geq n < n \wedge l = \mathbb{k} > = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s > 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_2 = 2 \wedge (\mathbb{k}_2 = \mathbb{k}_1 + 1) \Rightarrow$$

$$fz_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{\binom{()}{l_{ik}+j_{sa}-j_{sa}^{ik}}} \sum_{j^{sa}=j_{sa}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{is}=n+\mathbb{k}-j_s+1}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n-j^{sa}+1}}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{j_s=1}^{(l_s - j_s - 2)} \sum_{j_{ik}=1}^{(j_s - l_{sa} - l_{ik})} \sum_{j_{sa}=1}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{j_{sa}^{ik}=1}^{(j^{sa} - l_i + n + j_{sa} - D - s)} \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{j_s=j_{ik}+l_s-l_{ik}} \sum_{j_{sa}^i=j_{sa}+1} \sum_{j_{sa}^s=j_{sa}^{ik}+1} \sum_{j_{ik}=j_{sa}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_i-n_{is}-1)!}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

GÜLDÜNYA

$$\sum_{k=1}^{\binom{D}{n}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{D-n+l_s-1}{n+l_s-1}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+l_{ik}-j_{sa})}^{\binom{D-n+l_s-1}{n+l_s-1}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{\binom{n_i-j_s+1}{n_i-j_s+1}}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{\binom{D-n+l_s-1}{n+l_s-1}} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa})}^{\binom{D-n+l_s-1}{n+l_s-1}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik})! \cdot (n_{ik} + j_{ik} - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - n)!}{(D - n + s - l_i - l_{k_1})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq l_{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 \leq l_{sa} + j_{sa}^{ik} - j_{sa} \wedge l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$

$D + n - n < l_i \leq D - l_s + s - l_i - 1 \wedge$

$D \geq n \wedge l = l_k > 0 \wedge$

$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, l_{k_1}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$

$l_{k_2} \geq 3 \wedge l_{k_2} \geq s + l_k \wedge$

$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{\binom{D}{n}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{D-n+l_s-1}{n+l_s-1}}$$

GÜLDÜZMAYA

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \binom{(\quad)}{j^{sa}=j_{ik}+l_{ik}-l_i}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})}$$

$$\frac{\binom{n_i-1}{j_s-2} \cdot (n_i-n_{is}-1)!}{(n_i-n_{is}-1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-2) \cdot (n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{\binom{n_{ik}-n_{sa}-1}{j^{sa}-j_{ik}-1} \cdot (n_{is}+j_{ik}-n_{sa}-j^{sa})!}{(j^{sa}-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1} \binom{(\quad)}{j_s=j_{ik}+l_s-l_{ik}}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \binom{(\quad)}{j^{sa}=j_{ik}+l_{sa}-l_{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(\quad)}$$

$$\frac{(n_i+j_{ik}+j_{sa}^s-j_s-s-j_{sa}^{ik}-l_{k_1}-l_{k_2})!}{(n_i-n-l_{k_1}-l_{k_2})! \cdot (n+j_{ik}+j_{sa}^s-j_s-s-j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{l_{ik}} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik}} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{( )}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{(j_s - j_{sa})} \sum_{l_{ik}=1}^{(l_s - l_{ik})} \sum_{j_{ik}=j_{sa}^{ik} + 1}^{j_{sa}^{ik} + l_{sa} - l_{ik}} \sum_{j_s=1}^{(j_s - j_s + 1)} \sum_{n+l_k}^{(n+l_k - j_s + 1)} \sum_{j_{sa}=n_{ik} + j_{ik} - j^{sa} - k_2}^{(j_{sa} - j_{sa} - k_1)} \sum_{n_{ik}=1}^{(n_{sa} - n_{ik} + j_{ik} - j^{sa} - k_2)} \frac{(n_i + j_{sa}^s + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n \wedge l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge l = k) = 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{l_{ik}+1}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\frac{(n_i - j_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{l_{ik}-D-s}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDENWA

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s > l_s \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s > 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_2 : z = 2 \wedge (\mathbb{k}_2 = \mathbb{k}_1 + 1) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa}-j_{sa}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$



$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}} = \sum_{i=1}^{(j_s+1)} \sum_{(j_s=2)}^{(n_i+1)} \dots$$

$$j_{ik} = j_s + \dots - l_s \quad (j_{sa} = j_{ik} + l_{sa} - l_{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

GÜLDÜNKYA

$$\sum_{k=1}^{(l_{sa}-j_{sa}+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{sa}-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{( )} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_i)}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{( )} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^{s_1} - l_{k_2} - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - s)!}{(n_{is} + s - n - l_i - j_{sa}^{s_1})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{s_1} - 1 \leq j_{ik} \leq j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + l_{k_1} - j_{sa}^{ik} \leq j_{sa}^{s_1} \leq n + j_{sa} - s \wedge$$

$$l_{k_1} - j_{sa}^{ik} + 1 \leq l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = l_{k_1} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i_1} - 1 \wedge j_{sa}^{i_1} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{i_1}, l_{k_1}, l_{k_2}, j_{sa}^{i_1}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n+l_{k_2}-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)!(n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)!(n-j^{sa})!} \cdot \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_s-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} -$$

$$\sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i+j_{ik}+j_{sa}^s-j_s-s-j_{sa}^{ik}-l_{k_1}-l_{k_2})!}{(n_i-n-l_{k_1}-l_{k_2})!(n+j_{ik}+j_{sa}^s-j_s-s-j_{sa}^{ik})!}$$

$$\frac{(n_i+j_{ik}+j_{sa}^s-j_s-s-j_{sa}^{ik}-l_{k_1}-l_{k_2})!}{(n_i-n-l_{k_1}-l_{k_2})!(n+j_{ik}+j_{sa}^s-j_s-s-j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(\cdot)} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$



$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{(l_i - j_{sa}^{ik} + 1)} \sum_{j_s = l_i + n - s + 1}^{j_s} \sum_{i_k = j_s + l_{ik} - l_s}^{j_s} \sum_{j_{sa} = j_{ik} + l_{sa} - l_{ik}}^{j_s} \sum_{n + \mathbb{k}}^{n + \mathbb{k} - j_s + 1} \sum_{n_{is} = n + \mathbb{k} - j_s + 1}^{n_{is}} \sum_{n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}^{n_{sa}} \frac{(n_i + j_{sa}^s + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=1)}^{(\quad)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\left( \frac{(D) (j_{sa} - l_{sa} - s)!}{(n_{sa} + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) +$$

$$\left( \sum_{k=1} \sum_{(j_s=1)}^{(\quad)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+l_{ik}-l_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

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$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )} \sum_{j_{ik} \leq j_{ik} + j_{sa}^{ik}} \sum_{(j_s=1)}^{( )}$$

$$\sum_{i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_{ik}-\mathbb{k}_1, n_{sa}=n_{sa}-\mathbb{k}_2)}^{( )} \sum_{(j_s=1)}^{( )} \frac{(j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_s = 2 - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_s \leq n + j_{sa} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_s \leq D + j_{sa}^{ik} - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot 2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz_{j_s, j_{ik}, j_{sa}}^S = \sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{sa} - j_{sa} - 1)!}{(l_{ik} - j_{ik})! \cdot (n - j^{sa})!} \\
 & \frac{(D - j_{sa} - l_{sa} - s)!}{(n + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )} \\
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{( )} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{( )} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

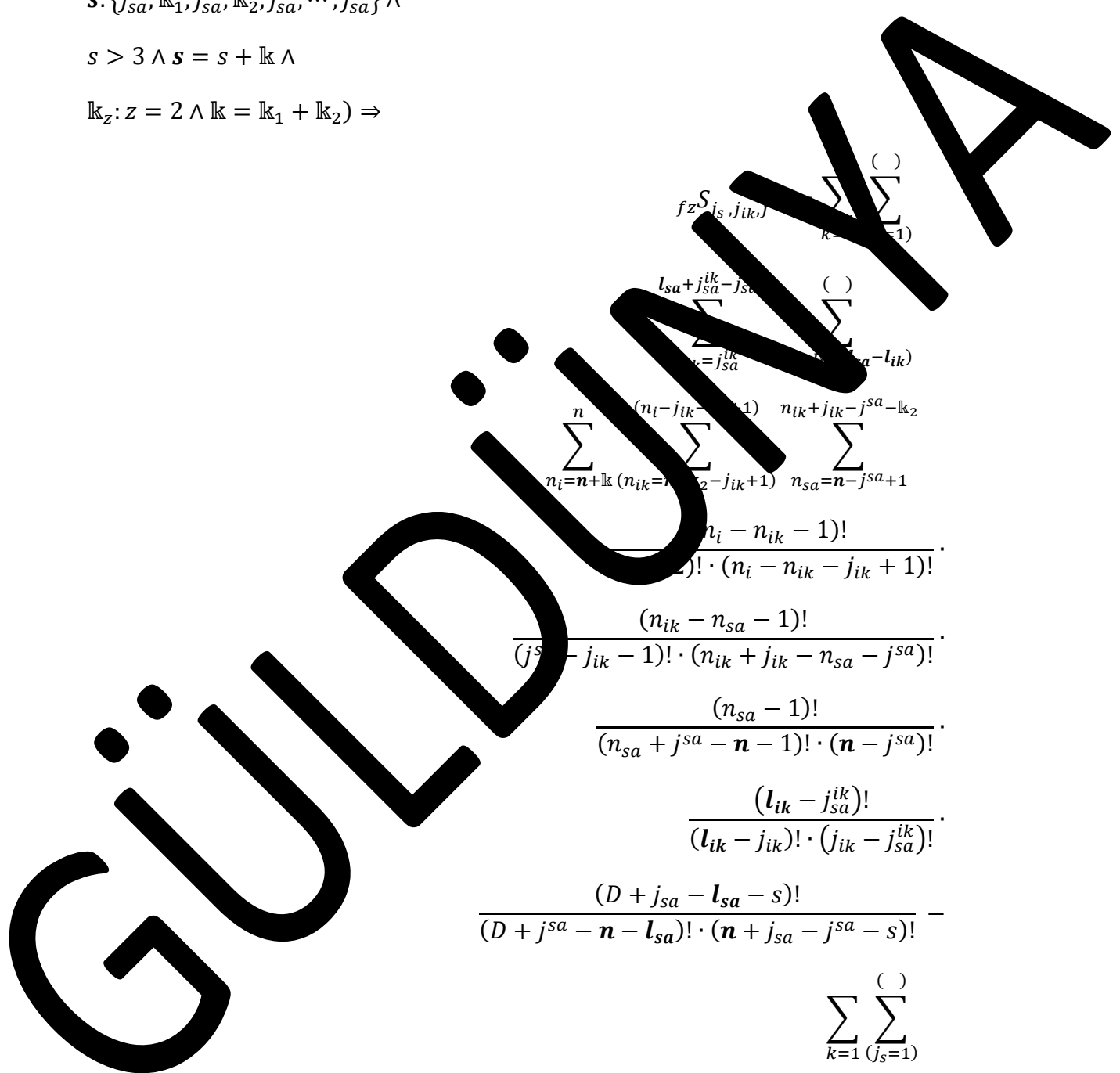
$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\sum_{k=1}^{(j_s)} \sum_{(j_s=1)}^{( )} f_z^{S_{j_s, j_{ik}, j_{sa}}} \sum_{n_i=n+k}^n \sum_{(n_{ik}=n-k_2-j_{ik}+1)}^{(n_i-j_{ik}-j_{sa}-1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \frac{(n_i - n_{ik} - 1)!}{(n_i - n_{ik} - j_{ik} + 1)! \cdot (n_i - n_{ik} - j_{sa} - 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_{sa}=j_{sa})}^{( )}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\ )} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - \dots)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\begin{aligned}
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) + \\
 & \left( \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \right. \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_{sa}=j_{sa}^{sa}+l_{sa}-l_{ik})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{(n_{sa}=n_i+j_{ik}-j_{sa}-l_{k_2})}^{n_{ik}+j_{ik}-j_{sa}-l_{k_2}} \\
 & \frac{(n_i - n - 1)!}{(j_{ik} - l_{k_2})! \cdot (n_i - n_i - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) - \\
 & \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{(\quad)} \sum_{(j_{sa}^{sa}=j_{sa})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{(\quad)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

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$$D \geq n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$\begin{aligned}
 & j_{ik}^{sa} \cdot j_{sa}^{ik} \cdot \sum_{k=1}^{(\cdot)} \sum_{j_s=1}^{(\cdot)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_{sa}=j_{sa}}^{(\cdot)} \\
 & \sum_{i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{j_{ik}-\mathbb{k}_1+1} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) + \\
 & \left( \sum_{k=1}^{(\cdot)} \sum_{j_s=1}^{(\cdot)} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{(\cdot)}
 \end{aligned}$$



$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{\substack{(n_i-j_{ik}-l_{k_1}+1) \\ (n_{ik}=n+l_{k_2}-j_{ik}+1)}} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - j_{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - l_{ik})!} \cdot \\
 & \left( \frac{(D - l_{ik} - s)!}{(D - j^{sa} - n - l_{sa})! \cdot (n - l_{sa} - s)!} \right) \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{( )} \sum_{(j^{sa}=j_{sa})}^{( )} \\
 & \sum_{n+l_k}^n \sum_{\substack{(n_{ik}=n_i-j_{ik}-l_{k_1}+1) \\ (n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

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$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$\begin{aligned} S_{j_s, j_{ik}} &= \sum_{k=1}^{\binom{()}{j_s}} (j_s = j_{ik} - j_{sa}^{ik} + 1) \\ &= \sum_{j_{ik} = j_s + j_{sa}^{ik} - j_{sa}}^{n + j_{sa} - s} \sum_{j^{sa} = l_{sa} + n - D}^{n + j_{sa} - s} \\ &= \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\ &= \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\ &= \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ &= \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\ &= \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\ &= \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\ &= \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \end{aligned}$$

$$\left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +$$

$$\left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j_s=l_i+n-D)}^{(n+j_{sa}-s)}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}^{(n_{is}+1)}$$

$$\sum_{n_{ik}=j_{sa}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(j_s=j_{sa}+1)}^{(j_s+l_k+j_{ik}-j_{sa}-l_{k_2})}$$

$$\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{is} - l_{k_1} - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_s=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - l)}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1, j_{sa}^s < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \cdot 4 \wedge s = \dots + \mathbb{k} \wedge$$

$$\mathbb{k}_z: \dots = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(n_i - 2)!}{(j_s - 2)!} \cdot \\
 & \left( \frac{(n + j_{sa} - s)!}{(D + j^{sa} - n - s)! \cdot (n - j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \right) \\
 & \sum_{n_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(n + j_{sa} - s)} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k_1=1}^{l_s - j_{sa} - 1} \sum_{k_2=1}^{n + j_{sa} - s} \\
& \sum_{j_{ik}=l_{ik} - D}^{l_s - j_{sa} - 1} \sum_{j^{sa}=l_{sa} + n - D}^{n + j_{sa} - s} \\
& \sum_{n_i=n+k_1}^{l_s - j_s + 1} \sum_{n_{is}=n+k_1 - j_s + 1}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik}=n+k_2 - j_{ik} + 1}^{j_{ik} - k_1} \sum_{n_{sa}=n - j^{sa} + 1}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) -
\end{aligned}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - j_s)!}{(D + j_s + s - l_i - l_{k_1} - l_{k_2})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + l_{k_1} + l_{k_2} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_{sa} + j_{sa}^{ik} - j_{sa} \wedge l_{ik} \wedge$$

$$(D \geq n < n \wedge l = l_{k_1} + l_{k_2} = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, l_{k_1}, j_{sa}^i - 2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = l_{k_1} + l_{k_2} \wedge$$

$$l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \right)$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \binom{(\quad)}{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{(\quad)}} \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{is}-j_{ik}-k_1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}^{ik})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_s-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}^{ik}-s)!} \right) + \\
 & \left( \sum_{k=1}^{(\quad)} \binom{(\quad)}{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{(\quad)}} \right) \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-k_2)} \\
 & \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot
 \end{aligned}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (l_{sa} + j_{sa}^{lk} - j_{sa} - l_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{j_s = j_{ik} - j_{sa}^{ik} + 1}^{j_s = j_{ik} - j_{sa}^{lk} + 1}$$

$$\sum_{j_{sa} = l_{sa} + n - D}^{j_{sa} = l_{sa} + n - D - 1}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{sa}^{ik})} \sum_{(j_s = j_{sa}^{ik})}$$

$$\sum_{(n_i - j_s + 1)}$$

$$\sum_{(n_i - j_s + 1)} \sum_{(n_i - j_s + 1 + k - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - k_1} \sum_{(n_{sa} = j_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n_{is} - k_1 - k_2)! \cdot (n_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > n + 1$$

$$2 \leq j_s = j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_s \leq j^{sa} \leq j_{sa} + j_{sa} - s \wedge$$

$$l_i + j_{sa} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l_s > n + 1 \wedge I = k > 0 \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j^{sa}} &= \left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \right. \\
 &\quad \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\cdot)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \\
 &\quad \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\quad \sum_{n_{is}+j_s-j_{ik}-k_1}^{(n_{is}+j_s-j_{ik}-k_1)} \sum_{(n_{ik}=n+k_2-j_{ik})}^{(n_{ik}+j_{ik}-k_2)} \\
 &\quad \sum_{n_{ik}=n+k_2-j_{ik}}^{(n_{ik}=n+k_2-j_{ik})} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)} \\
 &\quad \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\quad \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 &\quad \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 &\quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\quad \left. \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \\
 &\quad \left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \right. \\
 &\quad \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \\
 &\quad \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(j_{ik} + j_{sa} - j^{sa} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_{sa}+\mathbf{n}-D-j_{sa})} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}+1)}^{(n+j_{sa}-s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+\mathbf{n}-D)}^{(n_i-j_s+1)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot \\
& \frac{\binom{D + j_{sa} - l_{sa}}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - 1)!}}{\sum_{k=0}^{(n-s+1)} \sum_{l=0}^{D-s+1} \binom{(\cdot)}{j_{ik} - 1 + j_{sa}^{ik} - 1} \binom{(\cdot)}{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(\cdot)} \\
& \frac{(n_{ik} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(n-s+1)} \sum_{l_{sa}=l_{sa}+n-j_{sa}+1}^{(n-s+1)} \sum_{j_s+j_{sa}-1}^{(n-s+1)} \sum_{j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n-s+1)} \sum_{n_{is}+j_{sa}-1}^{(n-s+1)} \sum_{n_{ik}+\mathbb{k}}^{(n-s+1)} \sum_{n_{is}+j_{ik}-\mathbb{k}_1}^{(n-s+1)} \sum_{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(n-s+1)} \sum_{n_{ik}=n_{sa}-j_{ik}+1}^{(n-s+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n-s+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \right)$$

GÜLDÜZMÜNYA

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(n+j_{sa}-s)}^{(n+j_{sa}-s)} (j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1) \\
 & \sum_{n_i=n+k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_i=n+k-j_s+1) \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}+n_{sa}-1)!}{(j_{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)!(n-j_{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+l_{ik}-j_{sa}-l_{ik})!(j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})!(n+j_{sa}-j_{sa}-s)!} + \\
 & \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{(n+j_{sa}-s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_i=n+k-j_s+1) \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-k_2)}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \right) \cdot \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_{ik}=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$



$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$fz = \frac{\sum_{j_{ik} = j_{sa}^{ik} + j_{sa} - j_{sa}}^{(n + j_{sa} - s)} \binom{(n + j_{sa} - s)}{j_{sa}^{ik} + j_{sa} - j_{sa}} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \frac{n_{is} + j_s - j_{ik} - k_1}{\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \sum_{(n_{sa} = n - j^{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \Bigg) +$$

$$\left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik})} \right)$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+n)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_s-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}^{k_1}}^{(n_{is}+j_s-j_{ik}^{k_1}-l_{k_1})} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{is}+j_s-j_{ik}^{k_1}-l_{k_2})}$$

$$\frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_i-j_s+1)!} \cdot \frac{(n_{ik}-l_{k_1}-1)!}{(n_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}^{k_1}-l_{k_1})!}$$

$$\frac{(n_{ik}-1)! \cdot (n_{sa}-1)!}{(j^{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1}^{(j_s)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+n+j_{sa}-D-s)}^{(n+j_{sa}-s)}$$

GÜLDÜZYAN

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$(D \geq n < n \wedge l = \mathbb{k} > 0$

$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1, j_{sa}^s < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^l\} \wedge$

$s \cdot 4 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: \dots = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \left( \frac{(n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1 - s)!}{(D + j^{sa} - \mathbf{n} - j_s - s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1 - s)!} \right) + \\
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=l_s+\mathbf{n}-D)}^{(j_{ik}-j_{sa}^{ik})} \right) \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-j_{sa}^{ik})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

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$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - s)!} \cdot \sum_{j_s = j_{ik} - j_{sa}^{ik} + 1}^{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \sum_{j_{sa} = l_i + n + j_{sa} - D - s}^{(j_{sa} = l_i + n + j_{sa} - D - s)} \sum_{n_i = n + k}^{(n_i = n + k - j_s + 1)} \sum_{j_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(j_{ik} = n_{is} + j_s - j_{ik} - k_1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)} \frac{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D > n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+)}^{( )}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{(n_i-j_s+)}^{(n_i-j_s+)} \sum_{(n+n_k)}^{(n+n_k-j_s+1)}$$

$$\sum_{(n_{is}+j_{ik}-k_1)}^{(n_{is}+j_{ik}-k_1)} \sum_{(n_{sa}-k_2)}^{(n_{sa}-k_2)}$$

$$\sum_{(n_{sa}+k_2-j_{ik})}^{(n_{sa}+k_2-j_{ik})} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}=n-j_{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) +$$

$$\left( \sum_{k=1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik})} \sum_{( )}^{( )}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + j_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}
 \end{aligned}$$

GÜLDEN

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$S_{i_s, j_s} = \left( \sum_{k=1}^{n+j_{sa}^{ik}-s} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$



$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \right. \\
 & \left( \sum_{k=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s = \dots + n - D)} \right) \\
 & \sum_{n + j_{sa}}^{n + j_{sa}} \sum_{(j_s = \dots + n - D)} \sum_{(j_s = \dots + n - D)} \\
 & \sum_{n_i = \dots}^n \sum_{(n_{is} = n + k - j_s + 1)} \\
 & \sum_{n_{is} + j_{ik} - k_1}^{n_{is} + j_{ik} - k_1} \sum_{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \sum_{(n_{sa} = n - j^{sa} + 1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
 \end{aligned}$$

GÜLDENMYA

$$\sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - j_s)!}{(D + j_s + s - l_i - l_{k_1} - l_{k_2})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + l_{k_1} + l_{k_2} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \geq l_{sa} + j_{sa}^{ik} - j_{sa} \wedge l_{ik} \wedge$$

$$(D \geq n < n \wedge l_s > D - n + l_{k_1} + l_{k_2} \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, l_{k_1}, j_{sa}^i - 2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = l_{k_1} + l_{k_2} \wedge$$

$$l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(\cdot)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}+1)} \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)!(n-j^{sa})!} \cdot \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!}$$

$$\left( \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_s-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} \right) +$$

$$\left( \sum_{k=1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}+1)} \frac{(n_i-n_{is}-1)!}{(j_s-2)!(n_i-n_{is}-j_s+1)!}$$

GÜLDENWA

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)!(j_{ik} - j_s - j_s + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n_{sa} - l_{sa} - 1)!(n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{i=1}^{n-j_{sa}} \sum_{j_s=l_s+n-D}^{n-j_{sa}} \\
 & \sum_{j_{ik}=j_{sa}-D-j_{sa}}^{n+j_{sa}^{ik}} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{( )} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{sa}^{ik}-1} \sum_{(j_{ik}-j_s-j_{sa}^{ik})}$$

$$\sum_{(n_i-j_s+1)} \sum_{(n_i+l_{sa}^{ik}+j_{ik}-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-k_1} \sum_{(n_{sa}^{ik}+j_{ik}-j_{sa}-k_2)}$$

$$\frac{(n_i + j_{ik} - j_{sa}^s - j_s - l_{sa}^{ik} - k_1 - k_2)!}{(n_i - l_{sa}^{ik} - k_1 - k_2)! \cdot (n + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa}^s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 0 - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - l_s + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n) \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n-s+1)} \right. \\ \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ n_{is}+j_s-j_{ik}-\mathbb{k}_1 \quad n_{ik}-j_{ik}-\mathbb{k}_2 \\ \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}} \sum_{(n_{sa}=n-j^{sa}+j_{sa}^{ik})} \\ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1 - 1)!} \cdot \\ \frac{(n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\ \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +$$

$$\left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n-s+1)} \right. \\ \sum_{j_{ik}=j_s+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
 \end{aligned}$$

GÜLDENMAYA

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - j_{sa}^{ik} + 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j_{sa}^{ik} + 1)!}$$

$$\sum_{k=0}^{(n-s+1)} \sum_{l=0}^{D-s+1}$$

$$\sum_{j_{ik}=0}^{j_{sa}^{ik}-1} \sum_{j_{sa}^{ik}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(l_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$n \geq l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$



$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

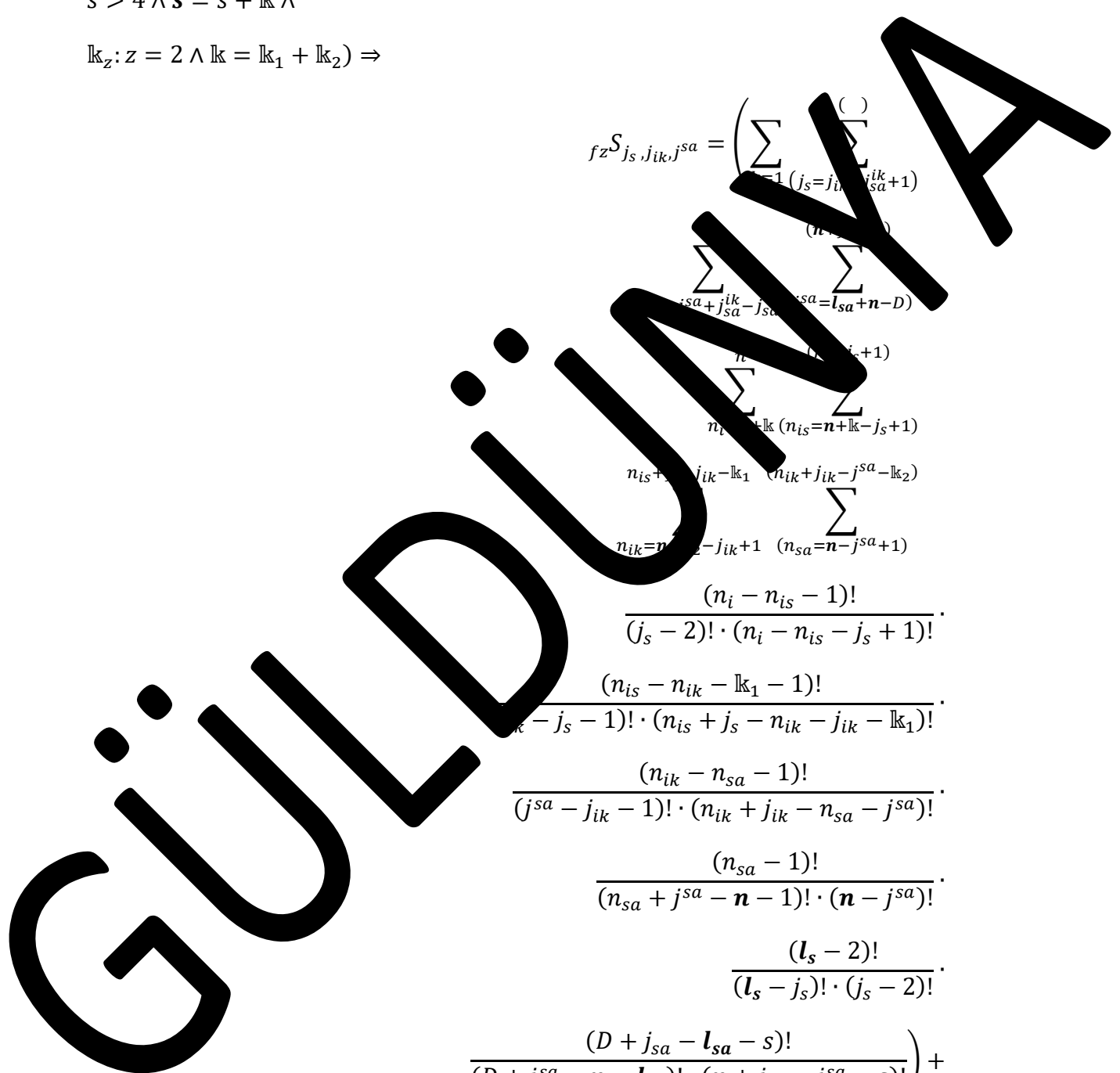
$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{i=1}^{(j_s=j_{ik}+j_{sa}^{ik}+1)} \sum_{n_{sa}=l_{sa}+n-D}^{(n_{sa}=n-j^{sa}+1)} \sum_{n_{ik}+j_{ik}-j_{sa}^{ik}-j_{sa}=l_{sa}+n-D}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_{is}+j_{is}-\mathbb{k}_1}^{(n_{is}=n+\mathbb{k}-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}+1}^{(n_{sa}=n-j^{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_s=l_s+n-D}^{(j_s=l_s+n-D)} \right)$$



$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1) \cdot (n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)}^{(j_s+l_s+n-D)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n_i-j_s+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - j_{sa} - s)!}{(n + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_i + n + j_{sa} - D - s)}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{sa}^{ik}} = \sum_{k=1}^{\binom{()}{j_s = j_{ik} - j_{sa}^{ik} + 1}} \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{\binom{()}{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{\binom{()}{n_i - j_s + 1}} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j_{sa} + 1)}^{\binom{()}{n_{ik} + j_{ik} - j_{sa} - k_2}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa}^{ik} - s)} \right. \\
& \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D}^{n + j_{sa}^{ik} - s} \sum_{(j_{sa} = j_{ik} + j_{sa}^{ik} + 1)}^{(n + j_{sa}^{ik} - s)} \\
& \sum_{n_i = n_{is} + j_s - \mathbb{k}_1}^{n_i} \sum_{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_i - j_s + 1)} \\
& \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \right) \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
 & \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}} \sum_{(n_{sa}=n-j_{sa}+)}^{(n_{is}+j_s-j_{ik}-k_1+j_{ik}-k_2)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - n_{ik} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{is} + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \\
 & \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{()} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}
 \end{aligned}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz \sim j_{sa}^{sa} = \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n-s+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n-s+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$



$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \left( \sum_{k=1}^{(n_{sa}+1)} \binom{n_{sa}+1}{k} \binom{n_{sa}+1}{j_{sa}+1} \right) \\
 & \sum_{i_k=j_s+j_{sa}^{ik}}^{n+l_s-k-s} \binom{n+l_s-k-s}{i_k} \binom{n+l_s-k-s}{j_s+j_{sa}^{ik}} \\
 & \sum_{i_s=i_k+l_k}^{n+l_s-k-s} \binom{n+l_s-k-s}{i_s} \binom{n+l_s-k-s}{i_k+l_k} \\
 & \sum_{i_{ik}=n_{sa}-j_{ik}+1}^{n_{sa}+l_k} \binom{n_{sa}+l_k}{i_{ik}} \binom{n_{sa}+l_k}{n_{sa}-j_{ik}+1} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{n + j_{sa}^{ik} - s} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \\
 & \sum_{k_1 = n + l_k}^n \sum_{(n_{is} = n_{is} + 1)}^{(n_{is} + 1)} \\
 & \sum_{k_2 = j_{ik}}^{n_{is} + j_s - j_{ik} - l_{ik}} \sum_{(j_s = j_s + 1)}^{(n_{ik} + j_{ik} - j^{sa} - l_{ik})} \\
 & \frac{(n_{is} - l_{ik} - k_1 - 1)!}{(j_{ik} - l_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{is} - l_{ik} - k_1 - 1)!}{(j_{ik} - l_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - 1)!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)}^{(n-s+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(n+j_{sa}-s)}^{(n+j_{sa}-s)} (j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1) \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_{is}=n+\mathbb{k}-j_s+1) \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1)} (n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_1) \\
 & \frac{(n_i-1)}{(j_s-2)(n_i-n_{is}+1)!} \cdot \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)(n_i-n_{is}-j_{ik}-\mathbb{k}_1)!} \\
 & \frac{(n_{ik}-n_{sa}-1)}{(j_{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)!(n-j_{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+j_{sa}^{ik}-j_{sa}-l_{ik})!(j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})!(n+j_{sa}-j_{sa}-s)!} \right) - \\
 & \sum_{k=1} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_{is}=n+\mathbb{k}-j_s+1) \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{( )} (n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)
 \end{aligned}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa})!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{j_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_{is} + j_s - j_{ik} - \mathbb{k}_1) + j_{sa}^{ik} - j_{sa}} \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{(n_{is} + j_s - j_{ik} - \mathbb{k}_1) + j_{sa}^{ik} - j_{sa}} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_{is} + j_s - j_{ik} - \mathbb{k}_1) + j_{sa}^{ik} - j_{sa}} \\
& \frac{(n_{is} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$n_{is} + j_s - j_{ik} - \mathbb{k}_1 \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{\mathbb{k} - j_{sa}^{ik} + 1} \sum_{(j_s = \dots + n - D)} \sum_{(n_i = \dots)} \sum_{(n_{is} + j_{sa}^{ik} - j_{sa} = l_{sa} + n - D)} \sum_{(n_{ik} = \dots)} \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)} \sum_{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = n - j_{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j_{sa}=l_{ik}+n+j_{sa}-D-j_{ik}^{ik})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{( )} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - j_s)!}{(D - j_s + s - l_i - l_{k_1} - l_{k_2})! \cdot (n + j_{sa} - j_{sa}^s - s)!}$$

$D \geq n < n \wedge l_s > D - n - l_i \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa}^a + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^s \wedge n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_{sa} \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^{ik} \wedge l_i \wedge l_i + j_{sa} - s = l_{sa} \wedge$

$(D \geq n < n \wedge l_s > D - n - l_i \wedge$

$j_{sa} \leq j_{sa}^{l_s} - 1 \wedge j_{sa}^{ik} = j_{sa}^{l_s} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{l_s}, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = l_s + l_k \wedge$

$(l_s = 2 \wedge l_k = l_{k_1} + l_{k_2}) \Rightarrow$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \binom{(\quad)}{(\quad)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \\
 & \sum_{k=1}^{\quad} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\quad} \binom{(\quad)}{(\quad)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \binom{(\quad)}{(\quad)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s = l_s \wedge$

$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} -$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = (\mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{\binom{(\cdot)}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)!(j_{ik} - j_s - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n_{sa} - 1)!(\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{\mathbf{n} - \mathbb{k}_1 - s} \sum_{i=j_s + j_{sa} - 1}^{l_{sa} + \mathbf{n} - D - j_{sa} + 1} \binom{(\quad)}{(\quad)} \\
 & \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1}^{\mathbf{n}} \sum_{n_{is} = \mathbf{n} + \mathbb{k}_1 - j_s + 1}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \mathbf{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n-s+1)} \sum_{j_{ik}=j_s+l_{sa}^{ik}-1}^{(j_s+l_{sa}^{ik}-1)} \sum_{l_{sa}^{ik}=j_{sa}^{ik}}^{(j_{sa}^{ik})} \sum_{l_{sa}^{ik}=l_{sa}^{ik}}^{(n_i-j_s+1)} \sum_{l_{sa}^{ik}=l_{sa}^{ik}}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1}}^{(n_{sa}^{ik}+j_{ik}-j^{sa}-l_{k_2})} \sum_{l_{sa}^{ik}=l_{sa}^{ik}}^{(n_i-j_s+1)} \frac{(n_i + j_{ik} - j_{sa}^s - j_s - l_{k_1} - l_{k_2} - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(l_i - n_{ik} - l_{k_1} - l_{k_2})! \cdot (n + l_{k_1} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_{sa}^s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > 0 - n + 1 \wedge$

$2 \leq j_s \wedge j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_s \leq j^{sa} \leq j_{sa} + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$

$(D \geq n < n) \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + l_{k_1} \wedge$

$l_{k_z}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n - k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik}}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} - k_2)}^{n + j_{ik} - k_1 - j^{sa} - k_2}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)}^{(n-s+1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(n + j_{sa} - s)}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j_s - n - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (j_s - 1)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} + l_{k_1} - j_{sa}^{ik} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa}) \cdot j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{\binom{()}{}}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa})!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_{is} + j_s - j_{ik} - \mathbb{k}_1)} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot \\
& \sum_{k=1}^{(j_s - j_{ik} - j_{sa} - s)} \frac{(j_s - j_{ik} - j_{sa} - s)!}{(j_s - j_{ik} - j_{sa} - s)!} \cdot \\
& \sum_{i=j^{sa} + j_s - j_{sa} - k}^{(j_s - j_{ik} - j_{sa} - s)} \frac{(j_s - j_{ik} - j_{sa} - s)!}{(j_s - j_{ik} - j_{sa} - s)!} \cdot \\
& \sum_{n_i = n + k}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \frac{(n_i - j_s + 1)!}{(n_i - j_s + 1)!} \cdot \\
& \sum_{j_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(n_i - j_s + 1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(n_i - j_s + 1)} \frac{(n_i - j_s + 1)!}{(n_i - j_s + 1)!} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n_{is} - j_{ik} - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D > n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j_{sa}=l_i+n+j_{sa}-D-s)}^{(n-j_{sa}-s)} \sum_{n_i=n+k}^{(n_i-j_s)} \sum_{n_{is}=n_{ik}-k_1}^{(n_{is}+j_s-n_{ik}-j_{ik}-k_1)} \sum_{n_{sa}=n+k_2-j_{ik}}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j_{sa}=l_i+n+j_{sa}-D-s)}^{(n-j_{sa}-s)}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > \dots \wedge$

$(D \geq n < n \wedge l = \mathbb{k} > 0$

$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1, j_{sa}^s < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^l\} \wedge$

$s \cdot 4 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: \dots = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_s+n+j_{sa}-D-1)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - n - l_s - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{( )} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$\begin{aligned} & \sum_{j_{ik}=l_{sa}+n+1}^{n+j_{sa}^{ik}-s} \sum_{j_{sa}^{ik}=j_{sa}+1}^{(n+j_{sa}^{ik}-s)} \\ & \sum_{n_{is}=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_s+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\ & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \end{aligned}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{ik} + j_{sa} - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - j_s)!}{(D + j_s + s - l_i - l_{k_1} - l_{k_2})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + l_{k_1} + l_{k_2} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge l_s > D - n + l_{k_1} + l_{k_2} \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, l_{k_1}, j_{sa}^{i-2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = l_{k_1} + l_{k_2} \wedge$$

$$z = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j^{sa}}} = \sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik})}$$

$$\frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!}$$

$$\frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-l_{k_1})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}^{ik})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+l_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}^{ik}-s)!}$$

$$\sum_{k=1}^l \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2})}^{( )}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa})!}$$

$$D \geq \mathbf{n} < n(D \geq \mathbf{n} < n \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq \mathbf{n} < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = l_s + \mathbf{n} + j_{sa}^{ik} - D - 1}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \mathbf{n} + \mathbb{k}}^n \sum_{(n_{is} = \mathbf{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \mathbf{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \mathbf{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!}$$

$$\sum_{k=1}^{j_s - j_{ik} - j_{sa}^{ik}}$$

$$\sum_{k=1}^{j_s - j_{ik} - j_{sa}^{ik}} \binom{D - s}{j_{sa}^{ik} - j_{sa} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + k}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k - j_s + 1)}$$

$$\sum_{k_1 = n_{is} + j_s - j_{ik} - k_1}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i - n + j_{sa} - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n + j_{sa} - j_s - s - j_{sa}^{ik})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D > n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{sa}^{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{(n-s+1)}$$

$$\sum_{n_i=n+k_1}^{(n_i-j_s)}$$

$$\sum_{n_{is}=j_{ik}-k_1}^{(n_{is}+j_s-n_{ik}-j_{sa}-k_2)}$$

$$\sum_{n_{sa}=n-j_{sa}+1}^{(n_{sa}=n-j_{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n-s+1)} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n-s+1)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > \dots \wedge$

$(D \geq n < n \wedge l = \mathbb{k} > 0$

$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1, j_{sa}^s < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^l\} \wedge$

$s \cdot 4 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: \dots = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - n - l_s + s)!}{(D + j^{sa} - n - l_s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l_s > D - \mathbf{n} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$\begin{aligned} & \sum_{i=1}^{j_{sa}} \sum_{s=1}^{(n-s+1)} \sum_{l=1}^{(j_{sa}+n-D)} \\ & \sum_{j_{ik}+j_{sa}^{ik}-1}^{j_{ik}+j_{sa}^{ik}} \sum_{a=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_{sa}+n-D)} \\ & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\ & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \end{aligned}$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{( )}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(n - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - s)!}{(n_{sa} + s - n - l_i - i)! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - 1) \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} - n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} - n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$(n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_z \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_s+n-D)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_s+n+j_{sa}^{ik}-D-1}^n \sum_{(n_i=j_s+1)}^{(n+j_s+1)}$$

$$\sum_{n_{is}=n+l_s+n+j_{sa}^{ik}-D-1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa})}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l_s - j_{sa})! \cdot (n - j_{sa} - j^{sa} - l_s)}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s > D - n + 1 \wedge \\ & 2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee \\ & ((D \geq n < n \wedge l_s > D - n + 1 \wedge \\ & 2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge \end{aligned}$$

$$(D \geq n < n \wedge I = \mathbb{k}_1 + \mathbb{k}_2 = 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_s^s, \dots, \mathbb{k}_1, j_s^s, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}; z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1) \cdot (n_{is}-n_{ik}-j_{ik}-k_1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+j_{sa}^{ik}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} +
 \end{aligned}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \\
 & \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^n \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_i - j_s + 1)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$



$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$S_i: j_{sa} = \sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j_{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot \\
 & \sum_{j_s=1}^{n_{sa}} \sum_{j_{sa}=j_{ik}-j_{sa}}^{n_{sa}-j_{sa}-s} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{n_{sa}-j_{sa}-s} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{n_{sa}-j_{sa}-s} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-l_k} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
 \end{aligned}$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n+l_k}^{n+l_k} \sum_{(n_{is}=n+l_k+1)}$$

$$\sum_{n_{is}+j_s-l_{k_1}}^{n_{sa}-l_{k_2}} \sum_{(n_{sa}-l_{k_2})}^{(\ )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - s - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$(D - l_i)!$$

$$(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!$$

$$((D \geq n < n \wedge l_s = D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$(l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s = D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$(l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z \mathcal{S}_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + \dots)}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_{ik} = j_s + j_{sa}^{ik} + \dots)}^{(l_{sa} + n - D - j_{sa})} \sum_{(n_i = n + k - j_s + 1)}^{(n_i - j_s)} \sum_{(n_{is} = n + k_1 - j_{ik} - k_2)}^{(n_i - j_s)} \sum_{(n_{sa} = n - j_{sa} + 1)}^{(n_i - j_s)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_1)}$$

$$\frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1) \cdot (n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+j_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1}^{(n-s+1)} \sum_{j_s=l_i+n-D-s+1}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{( )}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa})!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge s < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = \mathbb{k} \wedge$$

$$\mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 \vee \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_{sa} + n - D)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 2)!}{(n_{sa} - j^{sa} - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(n_{sa} + j_{sa}^{ik} - n - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=0}^{(n-s+1)} \sum_{l=0}^{(D-s+1)} \sum_{j_{ik} + j_{sa}^{ik} - 1}^{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{n_i = n+k}^n \sum_{(n_{is} = n+k-j_s+1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{( )} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D > 1) \wedge n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \vee$$



$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j_{sa}}} = \sum_{k=1}^{j_s} \sum_{(j_s=l_s+n-D)}^{-(j_{sa}^{ik}+1)} \sum_{(j_{sa}+j_{sa}^{ik})}^{(n+j_{sa}-s)} \sum_{(j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{\binom{()}{j_s = i_{ik} - j_{sa}^{ik} + 1}} \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(n + j_{sa} - s)}$$

$$\sum_{l_k = n_{ik} + j_{sa}^{ik} - l_{k_1}}^{(n_i - j_s + 1)} \sum_{l_{k_2} = n_{sa} + j_{ik} + j_{ik} - j^{sa} - l_{k_2}}^{(n_i - j_s + 1)}$$

$$\frac{(n_i + j_{ik} - j_{sa}^s - j_s - l_{k_1} - j_{sa}^{ik} - l_{k_2})!}{(n_i - l_{k_1} - l_{k_2} + 1)! \cdot (n + l_{k_1} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa}^s + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

- $((D \geq n < n \wedge l_s > D - n + 1) \wedge$
- $2 \leq j_s \wedge j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $(l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$
- $(D \geq n < n \wedge l_s > D - n + 1 \wedge$
- $2 \leq j_s \wedge j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $(l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$
- $(D \geq n < n \wedge l_s > D - n + 1 \wedge$

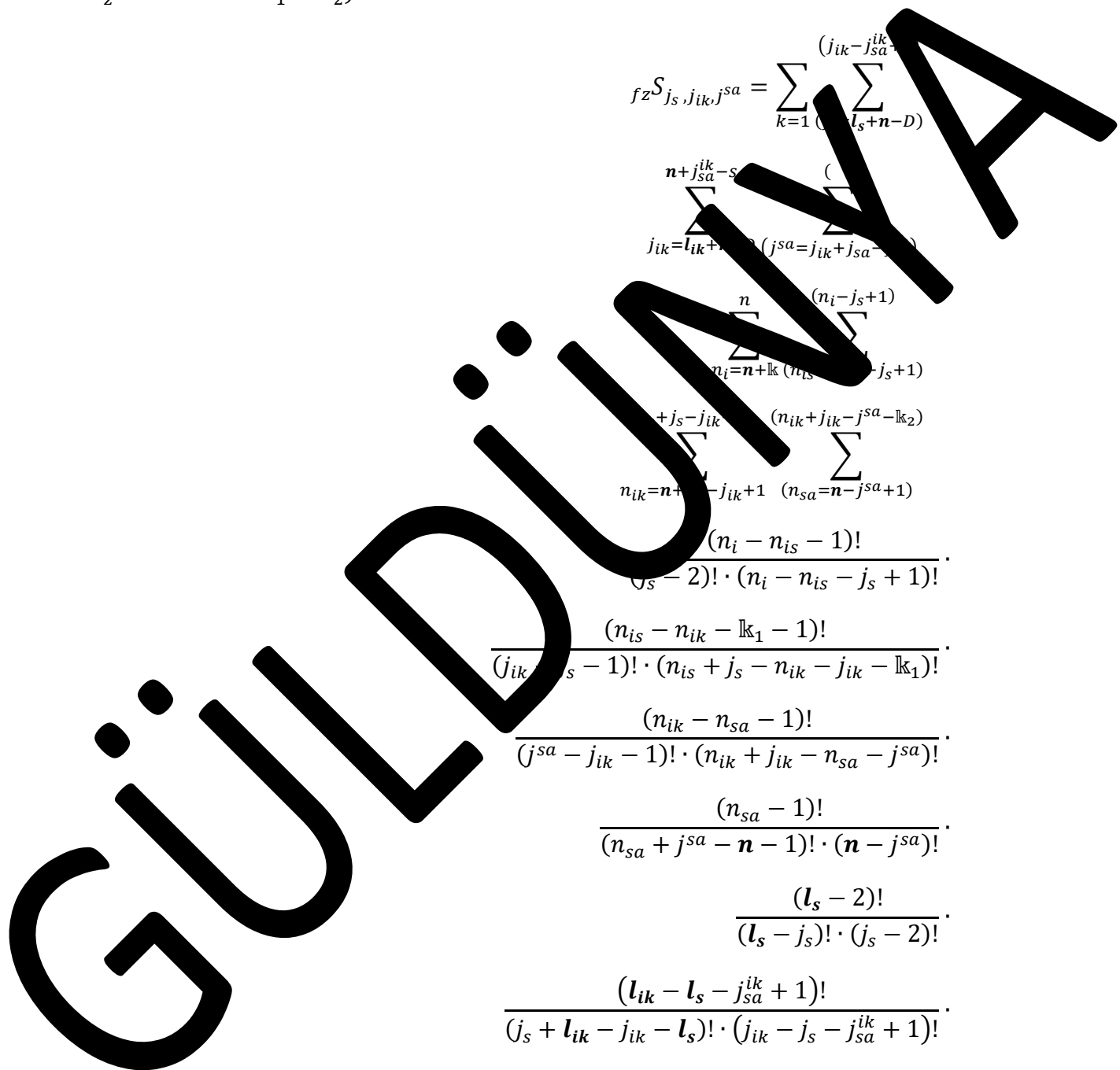
$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(l_s + n - D)}^{(n + j_{sa}^{ik} - s)} \sum_{j_{ik} = l_{ik} + 1}^{n} \sum_{(j_{sa} = j_{ik} + j_{sa}^{ik} - 1)}^{(n - j_s + 1)} \sum_{n_i = n + \mathbb{k}}^{n} \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + j_s - j_{ik}}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_i - n_{is} - 1)!} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$



$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \binom{(\quad)}{(\quad)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-k_2)} \binom{(\quad)}{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - 2)!}{(D + j_{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$(l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$(D > n < n \wedge l_s > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\{s = k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_2: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j^{sa}} &= \sum_{k=1}^{(l_{ik} + n - D - j_{sa}^{ik})} \sum_{(j_s = l_s + n - D)} \\
 &\sum_{j_{ik} = l_{ik} + n - D}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \\
 &\sum_{n_i = n + k}^n \sum_{(n_{is} = n - k - j_s + 1)}^{(n_i - j_s + 1)} \\
 &\sum_{n_{is} + j_s - j_{ik} - k_1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + k_2)}^{(n_{sa} - j^{sa} + k_2)} \\
 &\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}^{(n-s+1)} \\
 &\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}
 \end{aligned}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j_s - n - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (j_s - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} + l_{k_2} - j_s - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^n \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

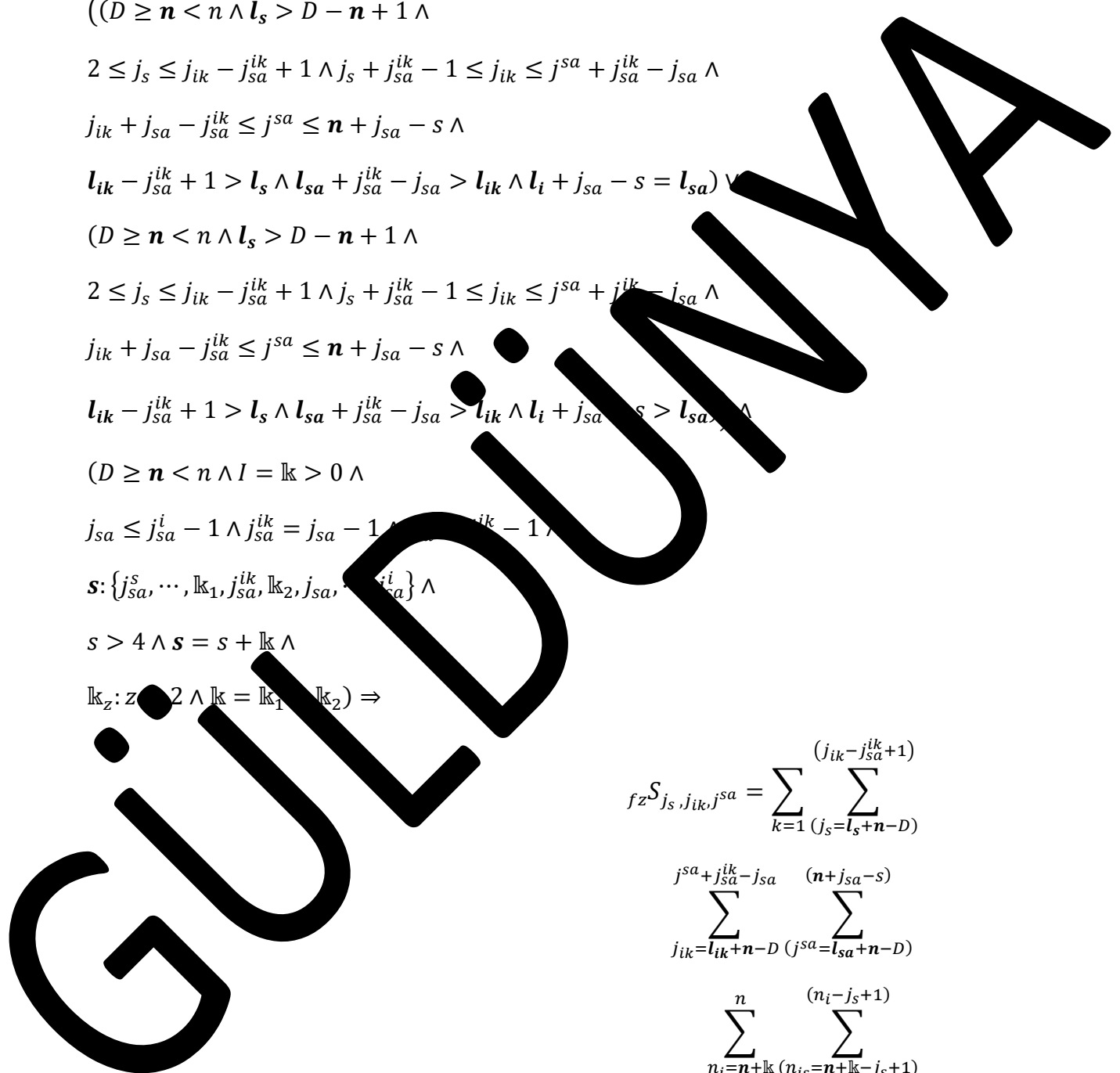
$$\mathbb{k}_2: z \leq 2 \wedge \mathbb{k} = \mathbb{k}_1 \vee \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$



$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(n_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{ik} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_s - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \\
 & \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_i + n + j_{sa} - D - s)}^{(n + j_{sa} - s)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{( )} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) =$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j_s - j_{ik} - j^{sa} - 1)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)!(j_{ik} - j_s - j^{sa} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s - 1)!}{(j_{ik} + l_{sa} - j^{sa} - j_s - 1)!(j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\ )} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \vee$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$\begin{aligned} \sum_{k=1}^s \sum_{j_s=l_s+n-D}^{(l_{ik}+n-D-j_{sa}^{ik})} j_s^{sa} &= \sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{j_{sa}=l_{sa}+n-D}^{(n+j_{sa}-s)} \\ &= \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\ &= \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ &= \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\ &= \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \end{aligned}$$

$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_s - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (j_s + j_{sa} - j_s)!} + \\
 & \sum_{k=1}^{(n-s+1)} \sum_{j_s}^{(n-s+1)} j_{sa}^{ik+1} \\
 & \sum_{j_{ik}}^{n+j_s-s} \sum_{j_{sa}}^{(n+j_{sa}-s)} j_{sa}^{ik-1} \quad (j^{sa}=l_{sa}+n-D) \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{i=l_i+n}^{s+1} \sum_{j=l_i+n}^{s+1}$$

$$\sum_{i+j_{sa}^{ik}-1}^{j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i+l_{ik}}^{n_i+l_{ik}+1}$$

$$\sum_{n_{sa}+j_s-i}^{n_{sa}+j_s-i+l_{ik_1}} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}$$

$$\frac{(n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - 1 + 1 \wedge$$

$$2 \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$j_{sa} - j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = l_{k_1} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + l_{k_1} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})} \binom{(\quad)}{\quad} \right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \binom{(n+j_{sa}-s)}{(j^{sa}=l_{sa}+n-D)} \cdot$$

$$\sum_{n_i=n+\mathbb{k}}^n \binom{(n-j_s+1)}{(n_i=n+\mathbb{k}-j_s+1)} \cdot$$

$$\sum_{n_{is}+j_s-j_{ik}} \binom{(n_{ik}+j_{ik}-j^{sa})}{(n_{is}+j_s-j_{ik}-j^{sa}+1)} \cdot$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +$$

$$\left( \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})} \binom{(\quad)}{\quad} \right.$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \binom{(n+j_{sa}-s)}{(j^{sa}=l_{sa}+n-D)} \cdot$$

$$\sum_{n_i=n+\mathbb{k}}^n \binom{(n_i-j_s+1)}{(n_{is}=n+\mathbb{k}-j_s+1)}$$

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$$\begin{aligned}
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(n_i + j_{ik} - j^{sa} - j_s)!}{(j_i + l_{sa} - j^{sa} - j_s)! \cdot (j^{sa} - j_{ik} - j_s)!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(n + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )} \\
 & \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_i + n + j_{sa} - D - s)}^{(n + j_{sa} - s)} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{( )} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^{S_{j_s, j_{sa}^{ik}}} = \left( \sum_{k=1}^{n+j_{sa}^{ik}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$



$$\begin{aligned}
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )} \right. \\
 & \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{sa} - j_{ik} + l_{sa})}^{(n + j_{sa} - s)} \\
 & \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} + j_s - n_{is} + k - j_s + 1)}^{(n_{ik} + j_s - n_{is} + k - j_s + 1)} \\
 & \sum_{(n_{is} + j_s - n_{ik} - k_1)}^{(n_{is} + j_s - n_{ik} - k_1)} \sum_{(n_{ik} + j_s - n_{sa} - k_2)}^{(n_{ik} + j_s - n_{sa} - k_2)} \\
 & \sum_{(n_{ik} + k_2 - j_{ik} + 1)}^{(n_{ik} + k_2 - j_{ik} + 1)} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{sa} = n - j^{sa} + 1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1) \cdot (n_{is}-n_{ik}-j_{ik}-k_1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+j_{sa}^{ik}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) - \\
 & \sum_{k=1}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}} \sum_{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}}
 \end{aligned}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa})!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s = j_{ik} + l_s - l_{ik})} \binom{()}{()}\right)$$

$$\sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \binom{()}{()}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{n_{ik} - n_{sa} - 1} \sum_{j_s = j_{ik} + l_s}^{n_{ik} - n_{sa} - 1} \cdot \\
& \sum_{j_{ik} = n + j_{sa} - l_{sa} - j_s}^{n_{ik} - n_{sa} - 1} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1}^{n_{ik} - n_{sa} - 1} \cdot \\
& \sum_{n_i = n + k}^{n_i - j_s + 1} \sum_{n_{is} = n + k - j_s + 1}^{n_i - j_s + 1} \cdot \\
& \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{ik} + j_{ik} - k_1} \sum_{n_{sa} = n - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - k_2} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

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$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-j_{sa})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik_1}}^{n_{is}+j_s-j_{ik_1}-l_{k_1}+j_{ik_2}-l_{k_2}} \sum_{(n_{sa}=n-j_{sa})}$$

$$\frac{(n_i - n_{ik_1} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik_1} - n_{ik_2} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik_1} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - l_{sa} - j^{sa} - l_{sa})!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1, j_{sa}^s < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s \cdot 4 \wedge s = \dots + \mathbb{k} \wedge$$

$$\mathbb{k}_z: \dots = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \right)$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(n_{is} - 2)!}{(j_s - 2)!} \cdot \\
 & \left( \frac{(n_{is} + j_{sa} - 1 - s)!}{(D + j^{sa} - n - 1)! \cdot (n_{is} + j_{sa} - j^{sa} - s)!} \right) + \\
 & \sum_{k=1}^{j_s} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n+j_{sa}^k-s)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=0}^{n-D-j_{sa}} \sum_{l_{ik}=l_{ik}+n-D-j_{sa}^{lk}}^{n-D-j_{sa}} \sum_{j_{ik}=0}^{n+j_{sa}-s} \sum_{n_i=n+k}^{n_i-j_s+1} \sum_{n_{is}=n+k-j_s+1}^{n_i-j_s+1} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{j_{ik}-k_1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
 \end{aligned}$$

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$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{( )} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(n - l_i)!}{(D + j_s - n - l_i)! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > D - n - 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{s_1} - 1 \leq j_{ik} \leq n + j_{sa}^{s_1} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik} \leq j_{sa}^{s_1} + n + j_{sa} - s \wedge$

$l_{k_1} - j_{sa}^{ik} + 1 \leq l_{k_2} \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$(D - n < n \wedge I = l_{k_1} = 0 \wedge$

$j_{sa}^{s_1} \leq j_{sa}^{s_1} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^{s_1} < j_{sa}^{ik} - 1 \wedge$

$s: \{j_s^{s_1}, \dots, l_{k_1}, j_{sa}^{s_1}, \dots, j_{sa}^{s_1}\} \wedge$

$s > 4 \wedge s = s + l_k \wedge$

$(z = 2, k = l_{k_1} + l_{k_2}) \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \right)$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_s-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) + \\
 & \left( \sum_{k=1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \right) \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot
 \end{aligned}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (l_{sa} + j_{sa}^{lk} - j_{sa} - l_{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{i=1}^{n-j_{sa}} \sum_{j_s=l_s+n-D}^{n-j_{sa}}$$

$$\sum_{i=j_s+l_{ik}-l_s}^{n+j_{sa}-s} \sum_{j^{sa}=l_{sa}+n-D}^{n+j_{sa}-s}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \Bigg) -$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_{sa}^{ik}=j_{sa}^{ik})}$$

$$\sum_{(n_i-j_s+1)} \sum_{(n_{ik}+l_{ik}-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1}} \sum_{(n_{sa}^{ik}+j_{ik}-j_{sa}-l_{k_2})}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{sa} - j_s - l_{k_1} - l_{k_2})!}{(n_i - l_{k_1} - l_{k_2})! \cdot (n + l_{k_1} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + l_{sa} - j_{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_{sa}^{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j^{sa}} &= \left( \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \right. \\
 &\quad \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}} \sum_{(j^{sa} = l_{sa} + n - s)}^{(n + j_{sa} - s)} \\
 &\quad \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 &\quad \sum_{n_{ik} = n + k_2 - j_{ik}} \sum_{(n_{sa} = n - j^{sa} - k_2)}^{(n_{is} + j_s - j_{ik} - k_2 + j_{ik} - j^{sa} - k_2)} \\
 &\quad \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\quad \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 &\quad \frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 &\quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\quad \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 &\quad \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 &\quad \left( \sum_{k=1} \sum_{(j_s = l_s + n - D)}^{(j_{ik} - j_{sa}^{ik})} \right. \\
 &\quad \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)} \\
 &\quad \left. \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \right)
 \end{aligned}$$

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$$\sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\left( \frac{(D + j_{sa} - l_{sa} - s)!}{(\mathbf{n} + j^{sa} - \mathbf{n} - l_{sa})! (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right)$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}^{(\mathbf{n}+j_{sa}-s)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\ )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{sa}^{sa}} = \left( \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \right)$$

$$\sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik})}^{(n - j_s + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \right) \\
 & \sum_{j_{ik} = j^{sa} + l_{ik} - l_s}^{(n + j_{sa} - s)} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \\
 & \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \\
 & \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \sum_{(j_s = l_s + n - D)}^{(n + j_{sa} - s)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}
 \end{aligned}$$

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$$\sum_{j_{ik}=j_{sa}+l_{ik}-l_{sa}} \sum_{(j_{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-k_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{i-k_1-k_2})!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - 2)! \cdot (j_s - 2)!}$$

$$\frac{(-l_i)!}{(D + j_{sa} - l_{sa})! \cdot (n + l_{sa} - j_{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik} - 1 < j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n - l_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$(D \geq n < n \wedge I = \dots > 0 \wedge$

$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{ \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa} \}$

$> 4 \wedge \dots = s + k \wedge$

$k_z: z = 2 \wedge k_1, k_2 \in \mathbb{Z} \Rightarrow$

$$f_z^S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik})} \right) \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(j_{sa}^{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - j_{sa}^{ik} + 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \sum_{j_{sa}^{ik}+1}^{( )} \sum_{j_{ik}=l_i+n_{ik}-D-s}^{n+j_{sa}^{ik}-l_{sa}^{ik}} (j^{sa}=j_{ik}+l_{sa}-l_{ik}) \cdot \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \cdot \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{( )} \cdot \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
\end{aligned}$$

$$l_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{i=1}^{n+1} \sum_{j_s=j_{ik}+1}^{(j_s=j_{ik}+1)} \sum_{l_s=l_s+n-D}^{(l_s=j_{ik}+l_{sa}-l_{ik})} \sum_{n_i=n_i+1}^{(n_i=n_i+1)} \sum_{n_{is}=n_{is}+\mathbb{k}}^{(n_{is}=n+\mathbb{k}-j_s+1)} \sum_{n_{ik}=n_{ik}-j_{ik}-\mathbb{k}_1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_{sa}=n_{sa}-j_{ik}+1}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_s=l_s+n-D}^{(j_s=l_s+n-D)} \right)$$

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$$\sum_{j_{ik} = l_{ik} + n - D}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{( )}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = j_s + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_1)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s - l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right)$$

$$\sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

$$\sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{n + j_{sa}^{ik} - s} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{( )}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = j_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} -$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{\binom{()}{j^{sa}=j_{ik}+l_{sa}-l_{ik}}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right)$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} +$$

$$\left( \sum_{k=0}^{n-s} \sum_{l=0}^{n-s+1} \binom{n-s+1}{k+l} \binom{n-s+1}{n-s+1-k-l} \right)$$

$$\sum_{j_s=j_s+j_{sa}}^{n-s} \binom{n-s}{j_s} \sum_{j^{sa}=j_{ik}+l_{sa}-l_{ik}} \binom{n-s}{j^{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\begin{aligned}
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_s + n - D)} \\
 & \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{n + j_{sa}^{ik} - s} \binom{(\quad)}{(j^{sa} = j_{ik} + l_{sa} - l_{ik})} \\
 & \sum_{n_{ik} = \sum_{k_2=1}^{n_{ik}} j_{ik}^{k_2}}^n \binom{(n_{ik} + 1)}{(n + k_1)} \binom{(n_{ik} + 1)}{(n_{is} = n_{ik} + 1)} \\
 & \frac{(n_{is} + j_s - j_{ik} - k_1 - 1)! \cdot (j_{ik} + j_{ik} - j^{sa} - k_1)!}{(n_{ik} - k_2 - j_{ik} - 1)! \cdot (j^{sa} + 1)!} \\
 & \frac{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}{(n_{is} - n_{ik} - k_1 - 1)!} \\
 & \frac{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - k_1)!}{(n_{ik} - n_{sa} - 1)!} \\
 & \frac{(j_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}{(n_{sa} - 1)!} \\
 & \frac{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}{(l_s - 2)!} \\
 & \frac{(l_s - j_s)! \cdot (j_s - 2)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_s + n - D - s + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \binom{(\quad)}{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - \dots)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - l_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$(D \geq n < n \wedge l = \mathbb{k} > 0$

$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1, j_{sa}^s < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^l\} \wedge$

$s \cdot 4 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: \dots = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n-s+1)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \left. \frac{(n_{sa} + j^{sa} - \mathbf{n} - 1 - s)!}{(D + j^{sa} - \mathbf{n} - 1 - s)! \cdot (n_{sa} - j^{sa} - s)!} \right) + \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{l_{ik} + n_{sa} - j_{sa}^{ik}} \sum_{j_s=l_s+n}^{j_s+l_s+n} \dots \\
 & \sum_{j_{ik}=l_{ik}-n-D}^{j_{ik}-s} (j^{sa}=j_{ik}+l_{sa}-l_{ik}) \binom{\dots}{\dots} \\
 & \sum_{n_i=n+k}^{n_i-j_s+1} \sum_{n_{is}=n+k-j_s+1}^{n_i-j_s+1} \dots \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{j_{ik}-k_1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \dots \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
 \end{aligned}$$

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$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_i)}^{( )}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(n - l_i)!}{(D + j_s - n - l_i)! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n - 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^s \leq j_{sa}^{ik} < n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$(D - n < n \wedge I = k_1 = 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_s^s, \dots, k_1, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k; z = 2, k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \\
 & \frac{(n_{is}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{ik}-n-1)!(n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+j_{sa}^{ik}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \\
 & \sum_{k=1}^{\binom{()}{}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{()}{}} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{\binom{()}{}}
 \end{aligned}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + l_{sa} - j_{sa} - 1)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(n + j_{sa} - s)} \sum_{(j^{sa} = l_{sa} + n - D)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} \cdot \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{(n + j_{sa} - s)} \sum_{j_{ik} = n_{sa} + l_{ik} - l_{sa}}^{(n + j_{sa} - s)} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)} \cdot \frac{(n_{ik} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$j_{sa}^{ik} > n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_{sa}}} = \sum_{k=1}^{j_s - j_{sa}^{ik} + 1} \sum_{j_s = n - D}^{n - j_{sa}^{ik} + 1} \sum_{j_{ik} = j_{ik} - D - j_{sa}}^{n + j_{sa}^{ik} - s} \sum_{j_{ik} = j_{ik} + l_{sa} - l_{ik}}^{n} \sum_{n_{is} = \mathbb{k}}^{n} \sum_{n_{ik} = j_{ik} - \mathbb{k}_1}^{n} \sum_{n_{sa} = n - j_{sa} + 1}^{n} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$



$$\sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_i)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k2})}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{ik} - l_{k1} - l_{k2})!}{(n_i - n - l_{k1})! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(n - l_i)!}{(D + j_s - n - l_i)! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{l_s} - 1 \leq j_{ik} \leq n + j_{sa}^{l_s} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > 0 \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$j_{sa} \leq j_{sa}^{l_s} - 1 \wedge j_{sa}^{j_{sa}^{ik}} = j_{sa}^{l_s} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{l_s}, l_{k1}, j_{sa}^{l_s} - j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = l_s + l_k \wedge$$

$$l_s = l_k = l_{k1} + l_{k2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \binom{(\quad)}{\quad} (j^{sa}=j_{ik}+l_{sa}-l_{ik}) \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-k_1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \binom{(\quad)}{\quad} (j^{sa}=j_{ik}+l_{sa}-l_{ik}) \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{\binom{()}{j^{sa} = j_{ik} + l_{sa} - l_{ik}}} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{\binom{()}{n_{is} = n + \mathbb{k} - j_s + 1}}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{\binom{()}{n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{sa}^{ik} = j_{sa} - 1}^{j_{sa}^{ik}} \sum_{j_{sa} = j_{sa}^{ik} - 1}^{j_{sa}^{ik}} \binom{n}{j_{sa}^{ik} + l_s - l_{ik}} \\ & \sum_{j_{sa}^{ik} = j_{sa}^{ik} - 1}^{j_{sa}^{ik}} \sum_{j_{sa} = j_{sa}^{ik} - 1}^{j_{sa}^{ik}} \binom{n + j_{sa} - s}{j_{sa}^{ik} + l_s - l_{ik}} \\ & \sum_{n_i = n + k}^n \sum_{n_{is} = n + k - j_s + 1}^{(n_i - j_s + 1)} \\ & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{n_{sa} = n - j^{sa} + 1}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\ & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \end{aligned}$$

$$\sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(\cdot)} \sum_{(n_{ik}=j_{ik}-j^{sa})}^{(\cdot)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j_{sa}^{ik} - l_{k_2})!}{(n_i - n - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa} - l_{sa} - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(n + l_s - j^{sa} - l_i)!}{(D + j_s - n - l_{k_1})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n - 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} < n + j_{sa} - s \wedge$$

$$l_{k_1} - j_{sa}^{ik} + 1 \leq l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D - n < n \wedge l = 0 \wedge$$

$$n \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_s^s, \dots, l_{k_1}, j_s^s, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n+j_{ik}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)}$$

$$\frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!}$$

$$\frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)!(n_i-n_{is}-j_{ik}-k_1)}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_i+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)!(n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+n-l_{sa}-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\ )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$S_j^{j_{sa}} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+n+j_{sa}-D-1)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_i)!} \cdot \sum_{k=1}^{(j_s - j_s)} \sum_{l_s - l_{ik}}^{(l_s - l_{ik})} \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(j_{ik} = j^{sa} + l_{ik} - l_{sa})} \sum_{l_i + n + j_{sa} - D - s}^{(l_i + n + j_{sa} - D - s)} \sum_{n + \mathbb{k}}^{(n + \mathbb{k})} \sum_{n_{is} = n + \mathbb{k} - j_s + 1}^{(n_{is} = n + \mathbb{k} - j_s + 1)} \sum_{n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_{is} + j_s - j_{ik} - \mathbb{k}_1)} \sum_{n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \frac{(n_i + j_{sa} + j_{sa}^s - j_s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n \wedge n \wedge l_s > D - 1 \wedge$$

$$2 \leq j_s \leq j_{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$



$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_z \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{is}-j_{ik}+1)}^{(n-j^{sa}+1)}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s > l_s \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} -$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = (\dots + \mathbb{k}_2) \Rightarrow$$

$$fz_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!}$$

$$\sum_{j_{ik}=l_i+1}^{n+j_{sa}^{ik}-D-s} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{(j_s+l_s-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}-j_s+1)}$$

$$\frac{(n_{is} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(j_s - j_{ik} + l_s - l_{ik})} \sum_{(j_s - j_{ik} + l_s - l_{ik})}^{(n + j_{sa}^{ik} - s)} \sum_{(j_{ik} = l_s + n + j_{sa}^{ik} - 1)}^{(j_{sa} = j_{ik} + l_{sa})} \sum_{(n_i = n + k_1)}^n \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} + j_s - j_{ik})}^{(n_{ik} + j_{ik} - j_{sa} - k_2)} \sum_{(n_{ik} = n + j_{sa} - j_{ik} + 1)}^{(n_{sa} = n - j_{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \sum_{k=1}^{(j_s - j_{ik} + l_s - l_{ik})} \sum_{(j_s - j_{ik} + l_s - l_{ik})}^{(n + j_{sa}^{ik} - s)}$$

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$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k2})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k1})!}{(n_i - n - l_{k1} - l_{k2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(n - l_i)!}{(D + j_{sa}^s - l_{sa})! \cdot (n + l_{sa} - j_{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik} \leq j_{sa}^{ik} + j_{sa} - j_{sa}^{ik} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n - j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$

$(D \geq n < n \wedge l_s > 0 \wedge$

$j_{sa}^{ik} \leq j_{sa}^i - 1, j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: (j_s, \dots, l_{k1}, j_{sa}^{ik}, l_{k2}, j_{sa}, \dots, j_{sa}^{ik})$

$> 4 \wedge s \leq s + l_k \wedge$

$l_{kz}: z = 2 \wedge l_{kz} \leq l_{kz} - l_{k2} \Rightarrow$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{( )} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}} = \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{( )} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)} \sum_{(j_{ik}=j_s+l_{ik}-s)}^{(n-s+1)} \sum_{(j_{ik}+l_{ik}-l_{ik})}^{(n-s+1)} \sum_{(n_i=n+l_k)}^{(n-s+1)} \sum_{(n_i=n+l_k-j_s+1)}^{(n-s+1)}$$

$$\sum_{n_{ik}=n_{is}} \sum_{j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i + j_{sa}^s - j_s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i + j_{sa}^s - j_s - s - j_{sa}^{ik})! \cdot (n + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s = D - n - 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j^{sa} \leq j_{sa}^{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_s < j_s^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$



$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa})!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge s < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = \mathbb{k} \wedge$$

$$\mathbb{k}_1 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{\binom{()}{j_s = j_{ik} + l_s - l_{ik}}}$$

$$\sum_{j_{ik} = l_s + n + j_{sa}^{ik} - D - 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{j^{sa} = l_{sa} + n - D}^{(n + j_{sa} - s)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(j_s - 2)!}$$

$$\frac{(j_{ik} + j_{sa}^{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa})! \cdot (j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) =$$

$$f_z \mathcal{S}_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{l_{sa} + n + j_{sa}^{ik} - D - j_{sa} - 1} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (l_{sa} + j_{sa}^{lk} - j_{sa} - l_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{j_s=1}^n \sum_{j_s=j_{ik}+l_s-l_{ik}}^n \sum_{j_{ik}=0}^{n+j_{sa}^{ik}} \sum_{j_{sa}=n-D-j_{sa}}^{(n+j_{sa}-s)} (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

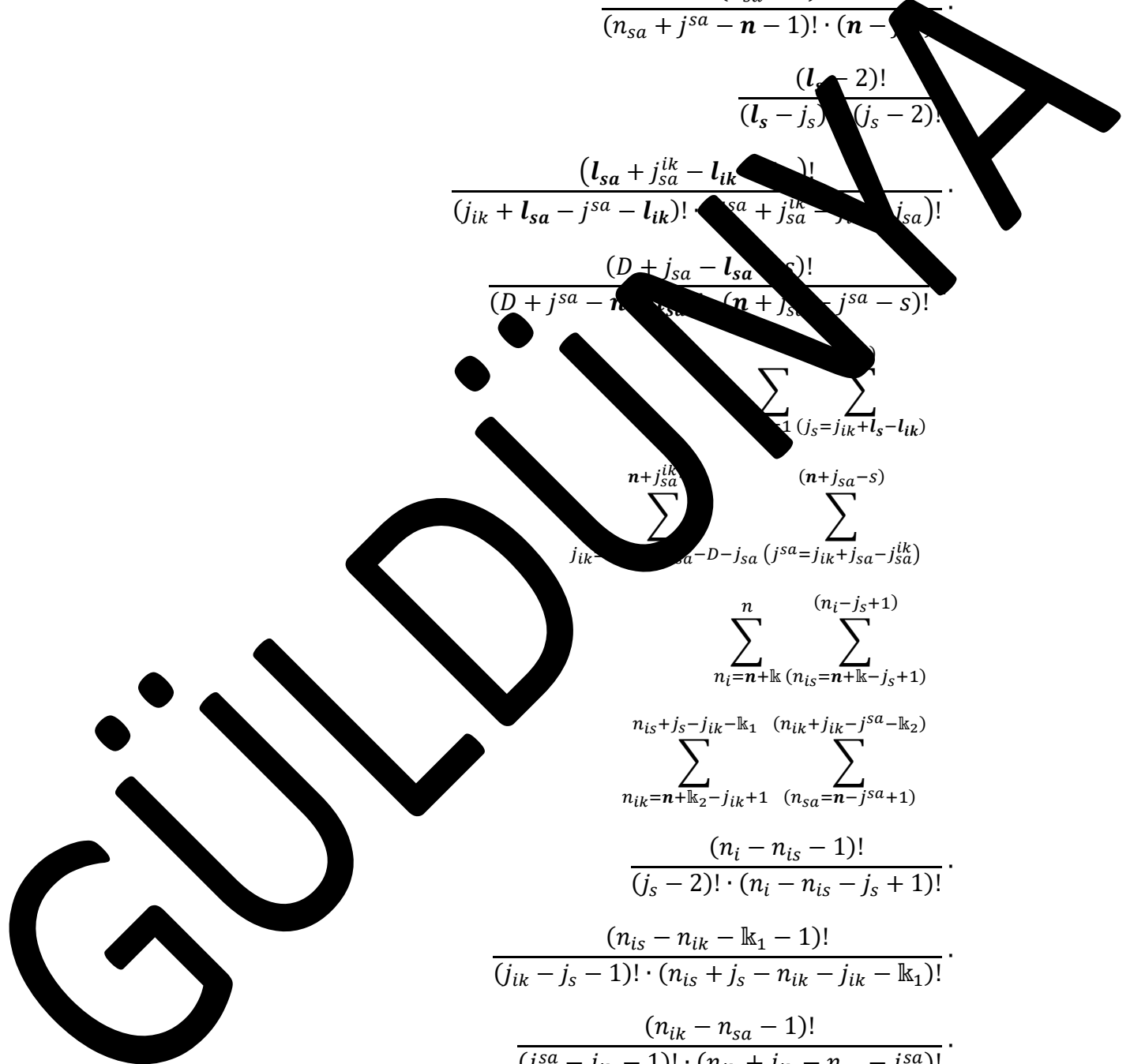
$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$



$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{(n_i-j_s+1)} \sum_{(n_i+l_{sa}+k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-k_1} \sum_{(n_{sa}+j_{ik}+j_{sa}^{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - k_1 - k_2)! \cdot (n + k_1 + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$(D \geq n < n \wedge l_s > 0 \wedge$$

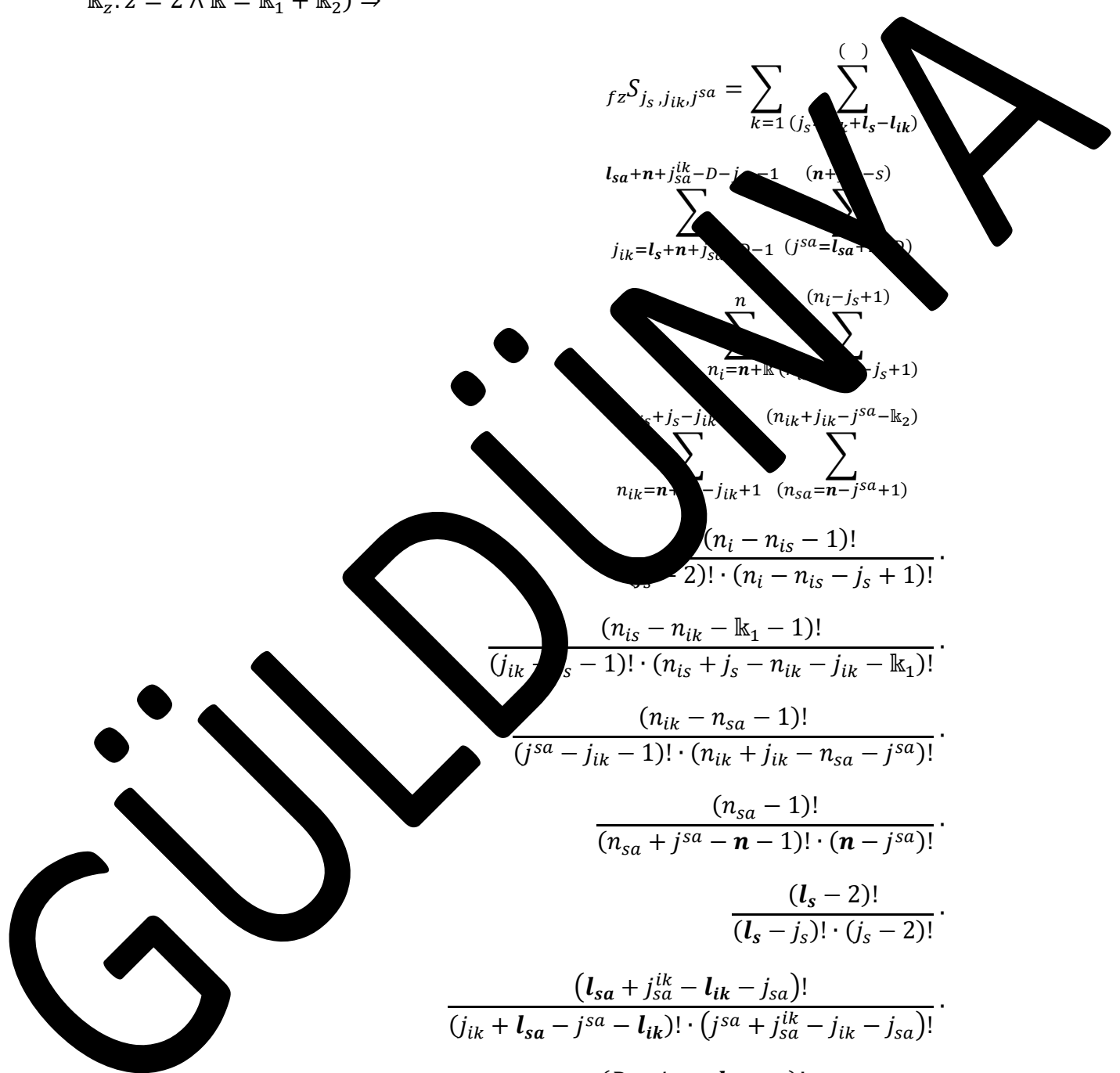
$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}} \sum_{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1}^{\binom{()}{n+l_{sa}-s}} \sum_{j_{ik}=l_s+n+j_{sa}^{ik}-1}^{\binom{()}{j_{sa}=l_{sa}+j_{sa}^{ik}-1}} \sum_{n_i=n+\mathbb{k}_1}^n \sum_{j_s=j_s+1}^{\binom{()}{n_i-j_s+1}} \sum_{n_{ik}=n-j_{ik}+1}^{n_i+j_s-j_{ik}} \sum_{n_{sa}=n-j^{sa}+1}^{\binom{()}{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}}$$



$$\begin{aligned}
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_{sa})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)!(n_i-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)!(n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}-j^{sa}-l_{ik})!(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} \\
 & \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$((D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \vee$

$(D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$

$(D \geq n < n \wedge l_s > 0 \wedge$

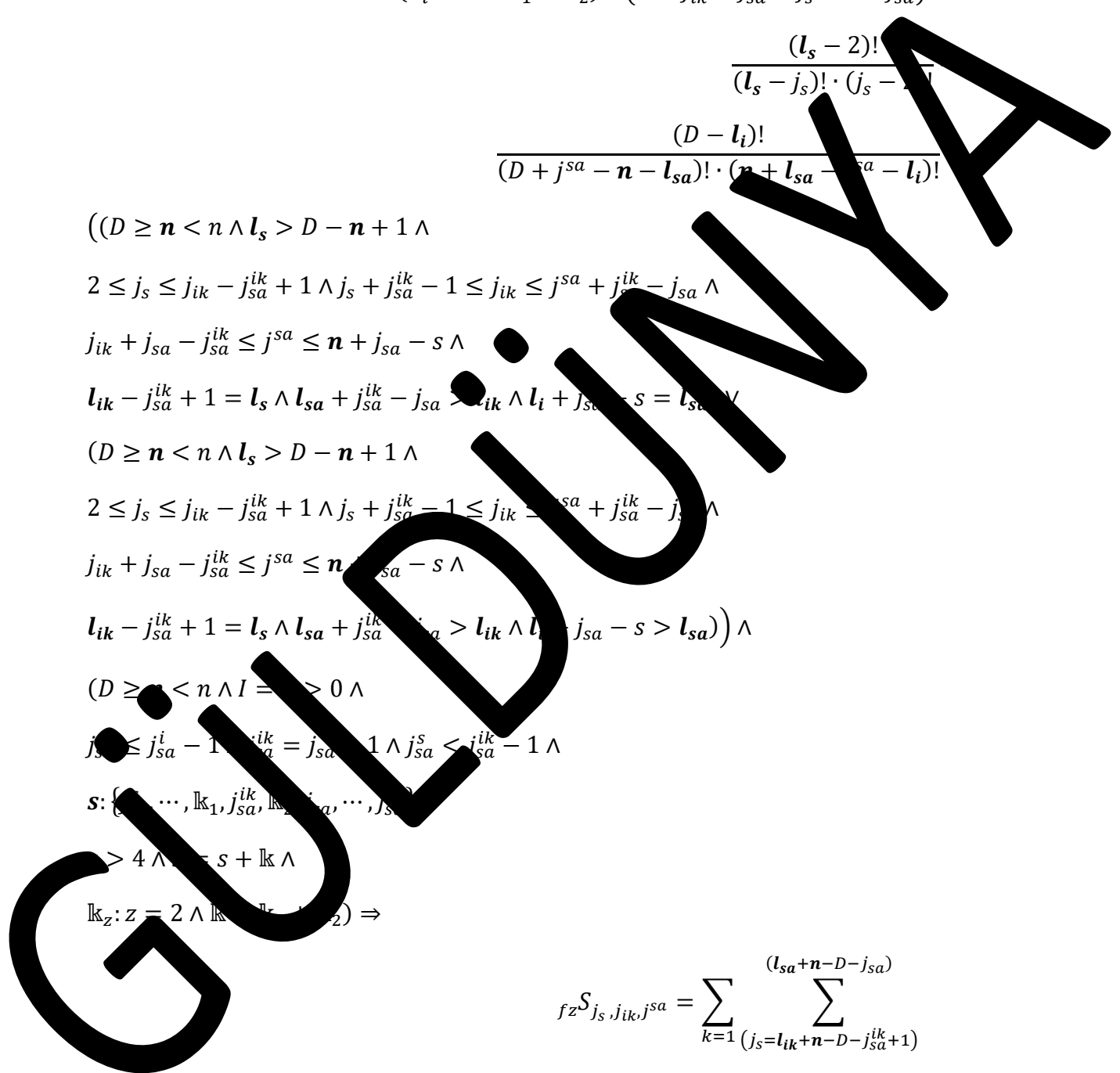
$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{ \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^s \}$

$> 4 \wedge l_s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_z - 1 - \mathbb{k}_2) \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)}$$



$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - l_{sa} - j_s - l_{sa} - 1)! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^n \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(n-s+1)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa}^{ik} - j_{sa} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=0}^{j_s-1} \sum_{j_s=l_i+n-D-s+1}^{j_s-1-k}$$

$$\sum_{j_s+j_{sa}^{ik}-1}^{j_s-1} \sum_{j^{sa}=j_{ik}+l_{sa}-l_{ik}}^{j^{sa}=j_s-1-k}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

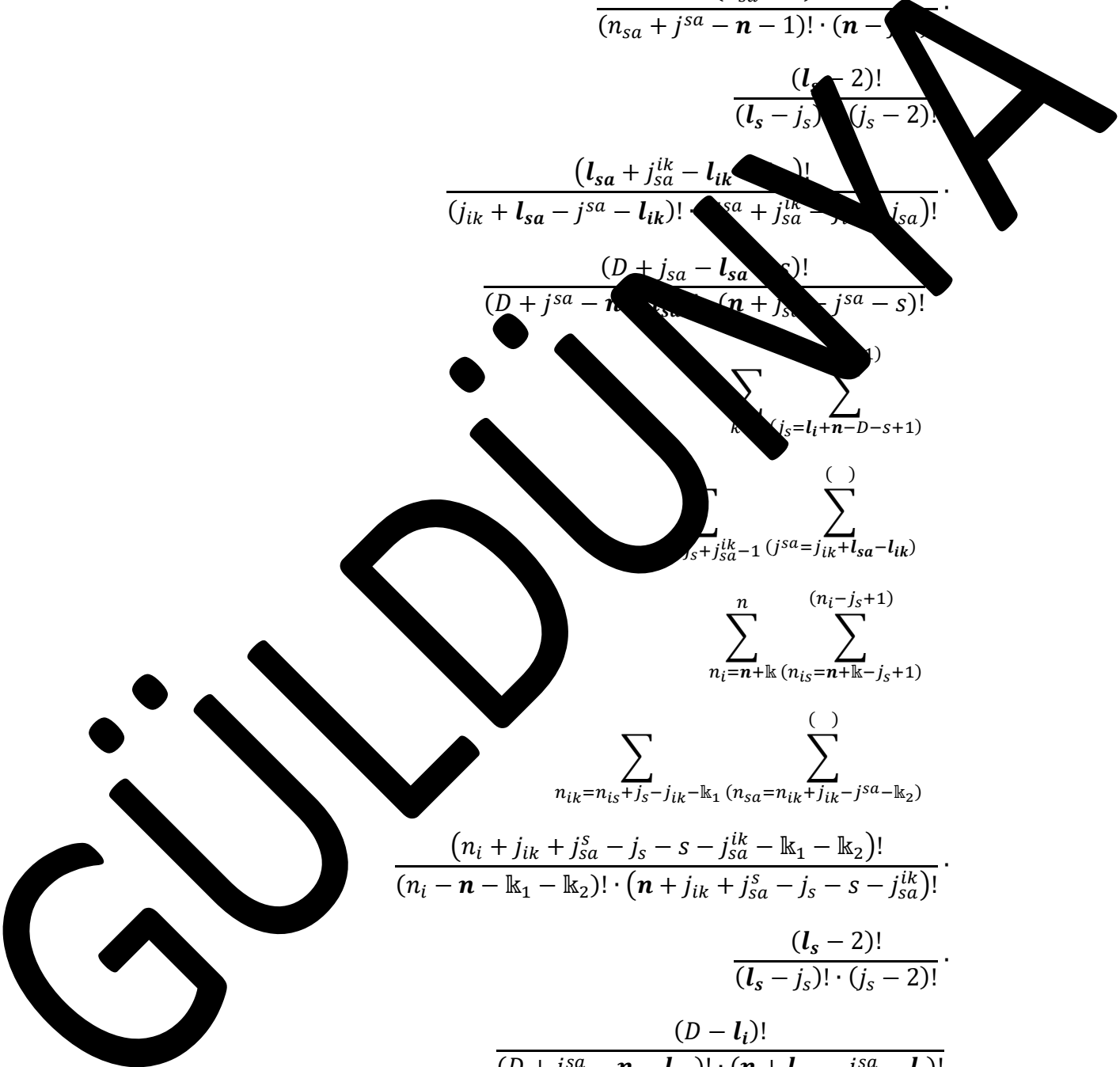
$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz = \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{(n+j_{sa}-s)} \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}}^{(n_i+j_s-j_{ik}-\mathbb{k}_1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(n_i - n_{is} + 1)} \binom{n_i - n_{is} + 1 - k}{i = l_{sa} + n - j_{sa} + 1} \cdot \binom{n_i - n_{is} + 1}{i = j_s + l_{ik} - l_s} \cdot \binom{n_i - n_{is} + 1}{i = j_{ik} + j_{sa} - j_{sa}^{ik}} \cdot \\
 & \sum_{k_1=0}^{n_{is} - j_{ik} - k_1} \binom{n_i - n_{is} + 1 - k_1}{n_{ik} + k_1} \cdot \binom{n_i - n_{is} + 1 - k_1}{n_{is} = n + k_1 - j_s + 1} \cdot \binom{n_i - n_{is} + 1 - k_1}{n_{ik} + j_{ik} - j^{sa} - k_2} \cdot \\
 & \sum_{n_{ik} = n - j_{ik} + 1}^{n_{sa} = n - j^{sa} + 1} \binom{n_i - n_{is} + 1 - k_1}{n_{sa} = n - j^{sa} + 1} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
 \end{aligned}$$

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$$\sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_i)}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(n - l_i)!}{(D + j_s - n - l_i)! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$((D \geq n < n \wedge l_s > D - 1) \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} - n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} - n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge$$

$$n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}^{(j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}} \sum_{(j^{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik})}^{(n + j_{sa} - s)}$$

$$\sum_{n_i = n + 1}^n \sum_{(n_i + j_s + 1)}^{(n + j_s + 1)}$$

$$\sum_{(j_s - 1)}^{(n_{is} + j_s - j_{ik})} \sum_{(j_s - 1)}^{(n_{ik} + j_{ik} - j^{sa})}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_i + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

$$\sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}} \sum_{(j^{sa} = l_i + n + j_{sa} - D - s)}^{(n + j_{sa} - s)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - l_{sa} - j^{sa} - l_{sa})!}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s > D - n + 1 \wedge \\ & 2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee \\ & (D \geq n < n \wedge l_s > D - n + 1 \wedge \\ & 2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa}) \wedge \\ & (D \geq n < n \wedge l_s = 0 \wedge \\ & j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge \\ & s: \{j_s^s, \dots, \mathbb{k}_1, j_{sa}^s, \dots, j_{sa}^i\} \wedge \\ & s > 4 \wedge s = s + \mathbb{k} \wedge \\ & \mathbb{k}: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow \end{aligned}$$

$$f_z^S j_s j_{ik} j^{sa} = \sum_{k=1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$



$$\sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1) \cdot (n_{is}-n_{ik}-j_{ik}-l_{k_1})!}$$

$$\frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{ik}-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{( )}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + l_{sa} - j_{sa} - l_i)!}$$

$$((D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa})) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge s < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \leq 4 \wedge s = \mathbb{k} \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(l_{ik} + n - D - j_{sa}^{ik})} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{n + j_{sa}^{ik} - s} \sum_{(j_{sa} = j_{ik} + l_{sa} - l_{ik})}^{( )}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(n-s+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - l_{sa})!} \cdot \sum_{k=0}^{(n-s+1)} \sum_{l=0}^{(D-s+1)} \sum_{j_{ik} + j_{sa}^{ik} - 1 \leq j^{sa} = j_{ik} + l_{sa} - l_{ik}} \sum_{n_i = n+k}^n \sum_{(n_{is} = n+k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$j^{sa} \geq n - l_{sa} \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{j_s=j_{ik}+1}^{(j_s=j_{ik}+1)} \sum_{j_{sa}=j_{sa}^{ik}+1}^{(j_{sa}=j_{sa}^{ik}+1)} \sum_{j_{sa}^{ik}=j_{sa}^{ik}-j_{sa}}^{(j_{sa}^{ik}=j_{sa}^{ik}-j_{sa})} \sum_{j_{ik}=j_{sa}}^{(j_{ik}=j_{sa})} \sum_{n_i=n_i}^{(n_i=n_i)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_{is}=n+\mathbb{k}-j_s+1)} \sum_{n_{ik}=n_{is}-j_{ik}+1}^{(n_{ik}=n_{is}-j_{ik}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \sum_{k=1}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_s+j_{sa}^{ik})}^{\binom{(l_{sa})}{}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{\binom{(n_i-j_s+1)}{}} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j_{sa}^{ik}+1)}^{\binom{(n_{ik}-j_s-l_{k_2})}{}} \\
 & \frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s+1)!} \cdot \\
 & \frac{(n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} -
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=1}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+j_{sa}-j_{sa}} \sum_{(j^{sa}=j_{sa}^{ik}+1)}^{\binom{(l_s+j_{sa}-1)}{}}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j_{sa} + s - n - l_s - j_{sa})! \cdot (n - j_{sa} - j_{sa} - \dots)}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n \wedge$

$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$

$s = \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z : z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(j_s - 2)!}$$

$$\frac{(j_{ik} + j_{sa}^{ik} - j_s - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - 1)! \cdot (j_s + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$\begin{aligned} \delta_{j_s, j_{ik}, j^{sa}} &= \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\ &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \end{aligned}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=0}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_s + j_{sa}^{ik} - 1} \sum_{(j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{j_s + 1} \sum_{n_{is} + k (n_{is} = n + k - j_s + 1)}$$

$$\sum_{n_{is} + j_s - j_{sa} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j_{sa} - k_2)}$$

$$\frac{(n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$n \geq n < n \wedge l_s > 1 \wedge l_s \leq D + j_{sa} - n \wedge$$

$$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=j_{sa}+1)}^{(n-j_s+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_{ik}+j_{ik}-j^{sa})} \frac{(n_i - n_{is})}{(n_{is} - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - \mathbb{k} - 1)!}{(j_{ik} - n_{is} - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=j_{sa}+2)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \right)$$

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$$\begin{aligned}
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(j_{ik} + j_{sa} - j^{sa} - j_{sa})!}{(j_{ik} + j_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa} + 1)}^{( )} \\
 & \sum_{j_{ik} = j_{sa} + 1}^{l_{ik}} \sum_{(j^{sa} = l_{ik} + j_{sa} - j_{sa} + 1)}^{(l_{sa})} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa})!}$$

$$\sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{( )}$$

$$\sum_{j_{ik}^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$1 \leq l_s \leq n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{(j_s)} \sum_{j_{sa}^{ik}=j_{sa}+1}^{(j_{sa}^{ik})} \sum_{j_{sa}=j_{sa}+1}^{(j_{sa})} \sum_{n_i=n_i+1}^{(n_i)} \sum_{n_{is}=n_{is}+1}^{(n_{is})} \sum_{n_{ik}=n_{ik}-j_{ik}+1}^{(n_{ik})} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{sa})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +$$

$$\left( \sum_{k=1}^{(j_s)} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{(j_s)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j_{sa}=j_{sa}+2)}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_1})}$$

$$\frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!}$$

$$\frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1) \cdot (n_i-n_{ik}-j_{ik}-l_{k_1})!}$$

$$\frac{(n_{ik}-n_{sa}-1)}{(j_{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j_{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j_{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} +$$

$$\sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=l_s+j_{sa})}^{(l_{sa})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(j_s - 2)!} \cdot$$

$$\frac{(j_{ik} + j_{sa}^{ik} - j_{sa} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa})! \cdot (j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(n + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=j_{sa}+1)}^{( )}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{sa}} = \left( \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \right)$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{ik} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{l_{ik}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{n_{ik}+j_{sa}^{ik}-k_1}^{(n_{ik}+j_{sa}^{ik}-k_1)} \sum_{(n_{ik}+j_{sa}^{ik}-k_1)}^{(n_{ik}+j_{sa}^{ik}-k_1)} \\
 & \sum_{n_{ik}+j_{sa}^{ik}-k_2}^{(n_{ik}+j_{sa}^{ik}-k_2)} \sum_{(n_{ik}+j_{sa}^{ik}-k_2)}^{(n_{ik}+j_{sa}^{ik}-k_2)} \\
 & \sum_{n_{ik}+j_{sa}^{ik}-k_2-j_{ik}+1}^{(n_{ik}+j_{sa}^{ik}-k_2-j_{ik}+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{l_{ik}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)}
 \end{aligned}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - 1)!}{(D + j_{sa} + s - n - j_{sa}^{ik})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - j_{sa}^{ik}$   
 $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa} - j_{sa}^{ik} \wedge$   
 $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$   
 $l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^{ik} > l_{ik} \wedge$   
 $(D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - j_{sa}^{ik}) \Rightarrow$   
 $j_s \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$   
 $s: \{ \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^{ik} \}$   
 $> 4 \wedge l_s = s + \mathbb{k} \wedge$   
 $\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j_{sa}}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \left( \frac{(D + j_{sa} - j^{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - j_{sa}^{ik} - j_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \\
& \sum_{j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{j_{sa}^{ik}+1}^{(n_i-j_s+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$l_s > 1 \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_{zS} j_s, j_{ik}, j_{sa} = \left( \sum_{k=1}^{(\mathbb{k}-j_{sa}^{ik}+1)} \sum_{j_s=2}^{(\mathbb{k}-j_{sa}^{ik}+1)} \sum_{j_{ik}=1}^{(j_{sa}^{ik}-j_s+1)} \sum_{j_{sa}=1}^{(n-j_{ik}-j_s+1)} \sum_{n_{is}=1}^{(n_{is}=n+\mathbb{k}-j_s+1)} \sum_{n_{ik}=1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_{sa}=1}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^s - s)!} + \left( \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{j_s=2}^{(l_{ik}-j_{sa}^{ik}+1)} \right)$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(l_{sa})}^{(l_{sa})} (j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1) \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_{is}=n+\mathbb{k}-j_s+1) \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1)} (n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_1) \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1) \cdot (n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \\
 & \frac{(n_{ik}-n_{sa}-1)}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}^{ik})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa}^{ik})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}^{ik}-s)!} \right) - \\
 & \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s=2)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_{sa})}^{(j_{sa})} (j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}) \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_{is}=n+\mathbb{k}-j_s+1) \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa})}^{(n_{sa})} (n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)
 \end{aligned}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa})!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$



$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left( \sum_{k=1}^{(l_s)} \binom{l_s}{j_s - k} \right)$$

$$\sum_{j_{ik}=j_s+1}^{(l_{sa})} \sum_{j_{sa}=j_{ik}+j_{sa}}^{(l_{sa}+1)}$$

$$\sum_{n_i=n+k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+k-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

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$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{( )}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{( )} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - 1)!}{(n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s = n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j_{sa}^{ik} < n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_{sa} + j_{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n \wedge I = k > 1 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$k_2 > 4 \wedge s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$f_z^S j_s j_{ik} j^{sa} = \left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \right)$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n_i-j_s+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)}$$

$$\frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-n_{ik}-j_{ik}-k_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\left( \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_s-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) +$$

$$\left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

GÜLDENWA

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa}^{ik})!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa}^{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{l_{ik}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(n)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{j_s=j_{ik}+1}^{( )} \sum_{j_{sa}^{ik}+1}^{( )} \sum_{j_{ik}+j_{sa}}^{(l_{ik}+j_{sa})} \sum_{j^{sa}+j_{sa}-D-s}^{( )} \sum_{n_{i_s}+k}^n \sum_{n_{i_s}=n+k-j_s+1}^{( )} \sum_{n_{ik}+j_s-k_1}^{( )} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{( )} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_{ik} - j_{sa} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - k \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(l_s)} \sum_{(j_{sa}=l_{sa}-1)}^{(j_{sa}-1)} \sum_{(j_{ik}=j_{sa}+j_{sa}^{ik})}^{(j_{sa}=l_{sa}-n-D)} \sum_{(n_i=j_s)}^{(n_i-j_s)} \sum_{(n_i=n+k)}^{(n+k-j_s+1)} \sum_{(n_{is}=j_{ik}-k_1)}^{(n_{is}=j_{sa}-k_2)} \sum_{(n_{sa}=n+k_2-j_{ik})}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^i)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa}^i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(l_s)} \sum_{(j_{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \sum_{(j_{ik}=j_{sa}^{ik}+1)}^{(j_{sa}=l_{sa}+n-D)} \right)$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - \dots - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + \dots - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + \dots - n - 1)!}{(l_s - 2)! \cdot (l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - l_{sa} - j_{sa} - l_{ik} - j_{sa})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + \dots - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{\dots} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\dots)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

GÜLDEN

SÜNNYA

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (n_{sa} + j_{sa}^{ik} - j_{sa} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - j_{sa} - j^{sa} - s)!}$$

$$\sum_{j_{ik}=1}^{\sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}} \sum_{j^{sa}=l_i+n+j_{sa}-D-s}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

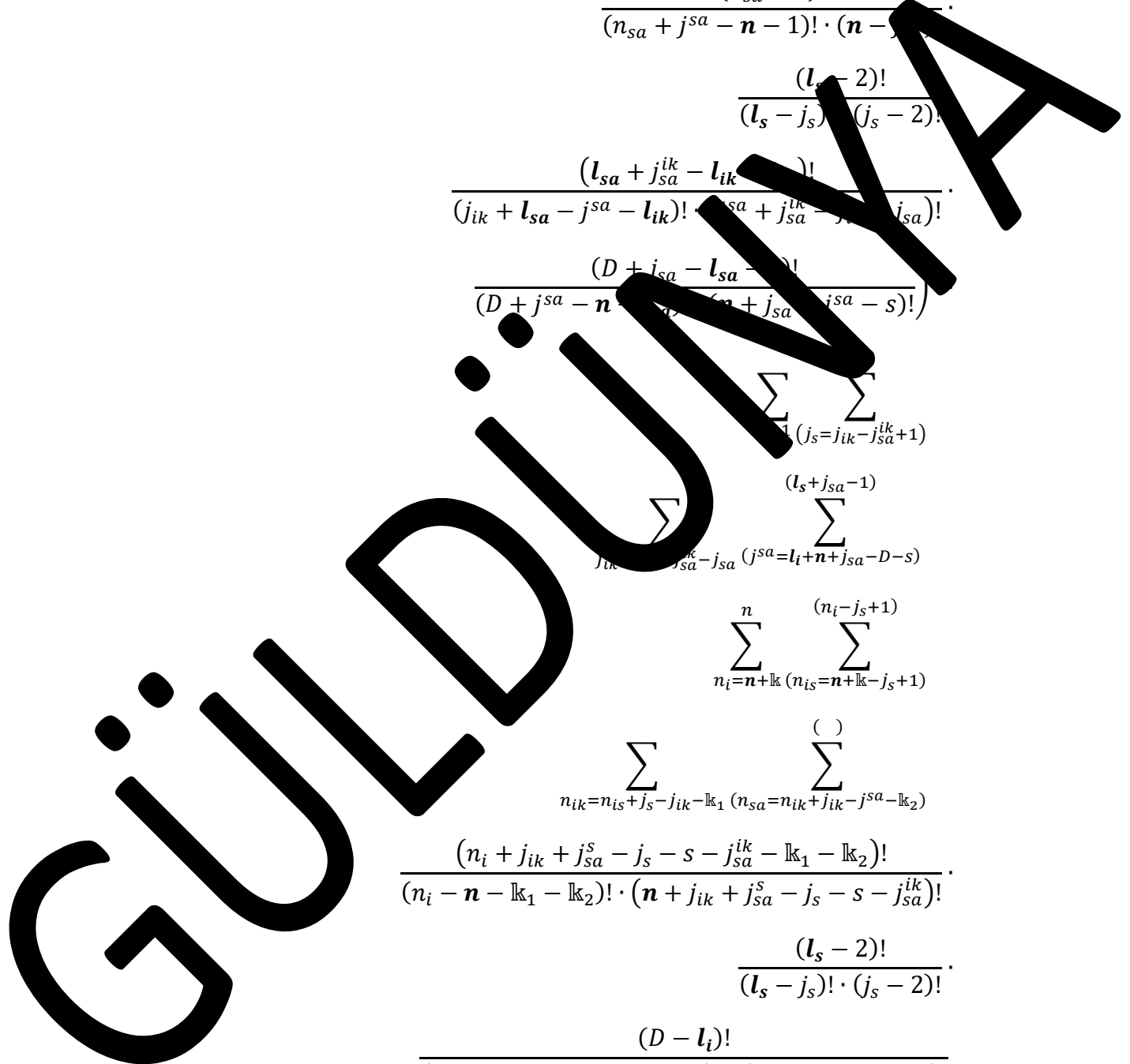
$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$





$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S j_s j_{ik} j_{sa} = \left( \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^n \sum_{j_{ik}=l_{sa}+j_{sa}^{ik}-D}^n \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^n \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\begin{aligned}
 & \left( \sum_{k=1}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \right) \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1}^{n_i-j_s+1} \sum_{(n_{sa}=n-j_{sa}^{ik}+k_2)}^{(n_i-j_s+1)} \\
 & \frac{(n_i-n_{sa}-1)!}{(j_s-2)! \cdot (n_{is}+j_s-j_{ik}-k_1)!} \\
 & \frac{(n_{is}+j_s-j_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)}
 \end{aligned}$$

GÜLDÜZYA

$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - l_{sa} - j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot \frac{(l_{ik} - j_{sa})!}{(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}
 \end{aligned}$$

GÜLDENMATA

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^S j_s, j_{ik}, j^{sa} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{l_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_{sa}^{ik}} \sum_{j_{ik}=n+j_{sa}^{ik}-D}^{j_{sa}^{ik}} \sum_{j_{sa}=j_{ik}+j_{sa}^{ik}}^{j_{sa}^{ik}+1} \sum_{n_i=n+k}^{n_i-j_s+1} \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{j_{ik}-k_1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

GÜLDÜMVA

$$\begin{aligned}
 & \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j_{sa}=l_{sa}+n-j_{ik}+j_{sa}^{ik})}^{\binom{()}{n+j_{sa}-s}} \\
 & \sum_{n_i=n+l_{ik}}^n \sum_{(n_{is}=n+l_{ik}-j_s+1)}^{\binom{()}{n_i-j_s+1}} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j_{sa}+j_{ik}-l_{k_2})}^{\binom{()}{n_{ik}-j_s+1}} \\
 & \frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s-1)!} \cdot \\
 & \frac{(n_{ik}-l_{k_1}-1)!}{(n_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \right) - \\
 & \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{}}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l_s - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$D + j_{sa} - n < l_{sa} \leq D + j_{sa} - n - 1$

$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1$

$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, \dots, \mathbb{k}_2, j_{sa}^s, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_{ik}-j_{sa}^{ik}+1)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
& \frac{(n_i - 2)!}{(j_s - 2)!} \cdot \\
& \left( \frac{(n_i + j_{sa} - 1 - s)!}{(D + j^{sa} - \mathbf{n} - 1)! \cdot (n_i + j_{sa} - j^{sa} - s)!} \right) + \\
& \sum_{k=1}^{j_s} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(l_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\end{aligned}$$



$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k_1=1}^{(l_{sa} + n_{sa} - j_{sa})} \sum_{(j_s=2)}^{(n + j_{sa} - s)} \\
& \sum_{n_i=n+k_1}^{(n - j_s + 1)} \sum_{(n_{is}=n+k_1 - j_s + 1)}^{(n - D)} \\
& \sum_{n_{ik}=n+k_2 - j_{ik} + 1}^{n_{is} + j_{ik} - k_1} \sum_{(n_{sa}=n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
\end{aligned}$$

$$\sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{( )} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik})! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - \mathbb{k})!}{(D - \mathbb{k} + s - l_i - \mathbb{k})! \cdot (n + j_{sa} - j_{sa}^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{sa} - 1 \leq j_{ik} \leq n + j_{sa}^{sa} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{sa} - j_{sa}^{ik} \leq j_{sa}^{sa} \wedge n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_{sa} + j_{sa}^{ik} - j_{sa}^{sa} \wedge l_{ik} \wedge$$

$$D + j_s - n < l_{sa} \leq l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n \wedge l = \mathbb{k} > 1 \wedge$$

$$j_{sa} \leq j_{sa}^{sa} - 1 \wedge j_{sa}^{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$4 \wedge s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j_{sa}}} = \left( \sum_{k=1}^{( )} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \right)$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{\substack{(\cdot) \\ j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}} \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_s-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \left( \sum_{k=1}^{(l_s)} \sum_{j_s=l_{sa}+n-D-j_{sa}+1}^{(l_s)} \right) \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!}
 \end{aligned}$$

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$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (l_{sa} + j_{sa}^{lk} - j_{sa} - l_{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{i=1}^{n-j_{sa}} \sum_{(j_s=2)}^{n-j_{sa}}$$

$$\sum_{i_k=j_s+j_{sa}^{ik}-1}^{n+j_{sa}-s} \sum_{(j^{sa}=l_{sa}+n-D)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$

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$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{sa}-1}^{j_{ik}=j_s+l_{sa}-1} \sum_{(j_{sa}=j_{ik}-l_{sa})}^{(j_{sa}=j_{ik}-l_{sa})}$$

$$(n_i - j_s + 1)$$

$$\sum_{+ \mathbb{k} (n_{i_s} + \mathbb{k} - j_s + 1)}$$

$$n_{ik}=n_{is}+j_{sa}-\mathbb{k}_1 (n_{sa}+j_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + \mathbb{k}_1 + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa}^s + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s \geq 1 \wedge l_s \leq s - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + s - n \wedge l_i \leq D + s - n \wedge$$

$$(n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_s+j_{sa}-1)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_s-1)} \sum_{(j_s=j_{sa}+1)}^{(n)} \sum_{n_i=n+1}^{(n+j_s+1)} \sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(j_s=j_{sa}+1)}^{(n-j^{sa}+1)} \frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)! \cdot (l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{is} + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa}=j_{ik} + j_{sa} - j_{sa}^{ik})} ( )$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$



$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} + \\
& \sum_{j_s=1}^{(l_s)} \sum_{j_s=2}^{(l_s)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_s)} \\
& \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{sa} - j_{sa}^{ik})}^{( )} \sum_{(n_i = n + l_{sa} - k_1 - k_2)}^{(n_i - k_1 - k_2 + 1)} \frac{(n_i + j_{ik} + j_{sa}^s - s - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 < j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge l_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j_s \leq n + j_{sa} \wedge$$

$$l_s - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_s \leq D + s - n \wedge$$

$$(D \geq n - 1 \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+\mathbb{k}_2)}^{(j_{ik}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = j_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} -$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2) \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{\binom{(\cdot)}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{j^{sa}=j_{sa}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right)$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa})!} +$$

$$\sum_{j_s=2}^{(j_{ik}-j_{sa})}$$

$$\sum_{j_{sa}=j_{sa}+2}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\begin{aligned}
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \frac{(l_{sa})}{(j_{ik}=j^{sa}+j_{sa}^{ik}-j_s-j_{sa}^{ik}+j_{sa})} \cdot \\
 & \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n+l_k)}^{(n+l_k)} \sum_{(n+l_k-j_s+1)}^{(n+l_k-j_s+1)} \cdot \\
 & \sum_{(n_{is}+j_{sa}-l_{k_1})}^{(n_{is}+j_{sa}-l_{k_1})} \sum_{(n_{ik})}^{(n_{ik})} \sum_{(n_{sa}-l_{k_2})}^{(n_{sa}-l_{k_2})} \cdot \\
 & \sum_{(n_{ik}+l_{k_2}-j_{ik})}^{(n_{ik}+l_{k_2}-j_{ik})} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) - \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}
 \end{aligned}$$

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$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa} - \mathbb{k}_1)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa} - \mathbb{k}_2)!}$$

$$\frac{(l_s - 2)!}{(l_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - \dots)!}{(D + j^{sa} + s - n - \dots - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - \dots$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa} - j_s \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - \dots = l_{ik} \wedge$

$(D \geq \dots < n \wedge I = \dots > 0 \wedge$

$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: (\dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^s)$

$> 4 \wedge \dots = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_z - 2) \Rightarrow$

$$f_z^S j_s j_{ik} j^{sa} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} \cdot \\
& \sum_{j_s=2}^{(l_s)} \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}} \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_k-1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_k-2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=1}^{(j_s)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{sa} - j_{sa}^{ik})}$$

$$(n_i + 1)$$

$$+ \mathbb{k} (n_{is} = n + \mathbb{k} - 1)$$

$$( )$$

$$= n_{is} + j_s - j_{sa} - \mathbb{k}_1 (n_{sa} = j_s - j_{sa} - \mathbb{k}_2)$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$(D - l_i)!$$

$$(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!$$

$$D \geq n < n \wedge l_s > l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge l_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j_{sa}^{ik} \leq n + j_{sa} - j_s \wedge$$

$$l_s - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n - \mathbb{k}_1 - \mathbb{k}_2) \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_1)} \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\left( \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_s-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) +$$

$$\left( \sum_{k=1}^{(l_s)} \sum_{j_s=2}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{l_{ik}} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - j_s + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - j_s - 1)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{( )}$$

$$j_s + j_{sa}^{ik} - 1 \quad (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{j_s = j_{ik} - j_{sa}^{ik} + 1}^{j_{sa} - 1} \sum_{j_{ik} = j_{sa} + j_s - j_{sa}}^{j_{sa} - 1} \sum_{j_{sa} = l_{sa} + n - D}^{j_{sa} - 1} \sum_{n_i = n + k}^n \sum_{n_{is} = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{n_{sa} = n - j_{sa} + 1}^{(n_{ik} + j_{ik} - j_{sa} - k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\begin{aligned}
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j_{sa}=l_{sa}+n)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_{is}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-l_{k_1}}^{(n_{is}+j_s-j_{ik}-l_{k_1})} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}=n-j_{sa}+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{(n_{ik}=n+l_{k_2}-j_{ik})} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}=n-j_{sa}+1)} \\
 & \frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_i-1)!} \cdot \frac{(n_{ik}-l_{k_1}-1)!}{(n_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-l_{k_1})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j_{sa}=l_s+j_{sa})}
 \end{aligned}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)! \cdot (l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{is} + l_{ik} - j_{sa}^{ik} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}$$

$$\sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$



$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - s)!}$$

$$\left( \sum_{k=1}^{j_s} \binom{j_s - j_{sa}^{ik}}{j_s - j_{sa}^{ik}} \right)$$

$$\binom{n_{ik} + j_{sa} - j_{sa}^{ik}}{j_{ik} - j_{sa}^{ik} - j_{sa}^{ik}} \binom{n_{sa} - j_{sa}^{ik}}{j_{sa} - j_{sa}^{ik} - j_{sa}^{ik}} \binom{n_{sa} - j_{sa}^{ik}}{j_{sa} - j_{sa}^{ik} - j_{sa}^{ik}}$$

$$\sum_{n_i = n + k}^n \sum_{n_{is} = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n - j_{ik} - k_1} \sum_{n_{sa} = n - j^{sa} + 1}^{(n_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\begin{aligned}
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik} (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n+j_{sa}^{ik}-s} \sum_{(n_{i_s}+1)}^{(n_{i_s}+1)} \\
 & \sum_{(n_{i_s}+1)}^{(n_{i_s}+1)} \sum_{(n_{i_s}+1)}^{(n_{i_s}+1)} \\
 & \sum_{(n_{i_s}+1)}^{(n_{i_s}+1)} \sum_{(n_{i_s}+1)}^{(n_{i_s}+1)} \\
 & \frac{(n_{i_s} + j_s - j_{ik} - k_1 - 1)! \cdot (n_{i_s} + j_{ik} - j^{sa} - k_2 - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{i_s} + j_s - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_s} - k_1 - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{i_s} + j_s - n_{i_s} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_s} - 1)!}{(j_{i_s} - j_{ik} - 1)! \cdot (n_{i_s} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_s)}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l_s - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + j_{sa}^{ik} + j_{sa} - n$

$(D \geq n < n \wedge l_s = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$

$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \left( \frac{(D + j^{sa} - \mathbf{n} - j^{sa} - s)!}{(D + j^{sa} - \mathbf{n} - j^{sa} - s)! \cdot (n_{sa} - j^{sa} - s)!} \right) + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(l_{sa} + n_{sa} - j_{sa})} \sum_{(j_s=2)}^{(j_s)} \binom{(\quad)}{j_{ik} + n_{sa} + j_{sa}^{lk} - j_{sa} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \\
 & \sum_{n_i = n + k}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
 \end{aligned}$$

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$$\sum_{k=1}^{\sum_{j_s=l_i+n-D-s+1}} \sum_{(l_s)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}$$

$$\sum_{n_i=n+lk}^n \sum_{(n_{is}=lk-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-lk_1} \sum_{(n_{ik}=n_{ik}+j_{ik}-j_{sa}^{ik})}^{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - lk_2)!}{(n_i - n - lk_1 - lk_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - j_s)!}{(n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s = n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa} - s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j_{ik} \leq n + j_{sa} - s \wedge$$

$$lk_1 - j_{sa}^{ik} + 1 > 0 \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^{ik} \leq lk_1 \wedge$$

$$D + j_{sa}^{ik} - n < lk_1 \leq n + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n \wedge l_s = lk_1 > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, lk_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$j_{sa}^s > 4 \wedge j_{sa}^s + lk_1 \wedge$$

$$lk_z: z = 2 \wedge lk = lk_1 + lk_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})} \right)$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)!(n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_s-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} + \\
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)} \right) \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{j_s=1}^{( )} \sum_{j_{sa}^{ik}+1}^{( )} \sum_{j_{ik}-j_{sa}}^{(l_s+j_{sa})} \sum_{j_{sa}^{sa}+n+j_{sa}-D-s}^{( )} \sum_{n_i+l_{ik}}^{( )} \sum_{n_{is}=n+l_{ik}-j_s+1}^{( )} \sum_{n_{is}+j_s-j_{sa}-l_{ik_1}}^{( )} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{( )} \frac{(n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_{ik} < j_{ik} - j_{sa} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$- j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+ \dots)} \binom{(\dots)}{\dots} \right) \cdot \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^i)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa}^i)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa}^i - s)!} + \left( \sum_{k=1} \sum_{(j_s=2)} \binom{(j_{ik}-j_{sa}^{ik})}{(j_s=2)} \right) \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \binom{(\dots)}{\dots}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j_{sa} - n - 1)!}{(l_s - 2)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + j_{ik} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - j^{sa} + 1)!}$$

$$\frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - j^{sa}) \cdot (n + j^{sa} - j^{sa} - s)!}$$

$$\sum_{j_s=j_{ik}-j_{sa}+1}^{\dots}$$

$$\sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{l_s+j_{sa}^{ik}-j_{ik}-j_{sa}-D-s}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\dots)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1}^n \sum_{(j_s + \dots + n - D - j_{sa}^{ik} + 1)} \right)$$

$$\sum_{i_{ik}=j_s+j_{sa}-1}^n \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1} \sum_{(n_{sa}=n-j_{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) +$$

$$\begin{aligned}
 & \left( \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)} \right. \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}=n+l_k-j_{ik}-l_{k_1}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(j_{ik}=j_{ik}-l_{k_2})}^{(j_{ik}-l_{k_2})} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{ik}} \sum_{(n_{sa}=n-j_{sa}^{ik})}^{(n_{sa}=n-j_{sa}^{ik})} \\
 & \frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s+1)!} \cdot \\
 & \frac{(n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}^{ik})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\
 & \sum_{k=1}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{( )} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{is} + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}
 \end{aligned}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1, \dots, s < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = \dots, \mathbb{k} \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$



$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)!(j_{ik} - j_s - j_s + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)!(j^{sa} + j_{sa} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\ )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa})}^{(l_{sa})} (j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n_{sa} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{l_k=l_s+j_{sa}^{ik}}^{(l_{sa})} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_k-1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_k-2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_k - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_k)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_{ik}=j_s+j_{sa}^{ik}-1)} \sum_{j_{sa}^{ik}=j_{ik}-j_s+1}^{(j_{sa}^{ik}=j_{ik}-j_s+1)} \sum_{j_{sa}^{ik}=j_{ik}-j_s+1}^{(j_{sa}^{ik}=j_{ik}-j_s+1)} \sum_{n_i=n_{ik}-j_{sa}^{ik}+1}^n \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-k_2}^{(n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-k_2)} \frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$S: j_{ik} j^{sa} = \sum_{i=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik} + j_{sa}^{ik} - 1}^{(l_{sa})} \sum_{(a=j_{ik} + j_{sa} - j_{sa}^{ik})}^{(l_{sa})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{(l_s)} \Delta_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \Delta_{(j_{ik}+l_{sa}-j_{sa}^{ik})}$$

$$\sum_{n+l_{ik}}^{(n_i-j_s+1)} \sum_{(n+l_{ik}-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{sa}^{ik}-l_{k_1}} \sum_{(n_s+n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - l_{k_1} - l_{k_2} - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i + j_{ik} + j_{sa}^s - j_s - l_{k_1} - l_{k_2})! \cdot (n + l_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa}^s - s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+ \dots + j_{sa}-1)} \sum_{j_{ik}=j_{sa}^{sa}+j_s} \sum_{(j_{sa}^{sa}=j_{sa}^{sa}+1)} \sum_{(n_i-j_s)} \sum_{(n_i=n+k)} \sum_{(n=n+k-j_s+1)} \sum_{(n_{is}+j_{ik}-k_1)} \sum_{(n_{sa}-k_2)} \sum_{(n_{sa}+k_2-j_{ik})} \sum_{(n_{sa}=n-j_{sa}^{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa}^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \left( \sum_{k=1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j_{sa}^{sa}=j_{sa}^{sa}+2)}^{(l_s+j_{sa}-1)} \right)$$



$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_{sa} - j^{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} + l_{k_1} - j_{sa}^{ik} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{ik} - j_s)! \cdot (j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(n_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=j_{sa}+2)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

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$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - s)!} \cdot \sum_{i=1}^n \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_s=j_{ik}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_s+j_{sa}^{ik}-j_s}^{j_{ik}=j_s+j_{sa}^{ik}-j_s+1} \sum_{n_i=n+k}^{n_i=n+k} \sum_{n_{is}=n+k-j_s+1}^{n_{is}=n+k-j_s+1} \sum_{j_{ik}=n_{is}+j_s-j_{ik}-k_1}^{j_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-k_2}^{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-k_2} \cdot \frac{(l_s + j_{sa} - 1)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((n \geq n \wedge n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$(j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s) \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{j_s - j_{ik} - j^{sa} + 1} \binom{j_s - j_{ik} - j^{sa} + 1}{k} \sum_{j_{sa}^{ik} + 1}^{j_{sa}^{ik} - 1} \binom{j_{sa}^{ik} - 1}{j_{sa}^{ik} + 1} \sum_{n_i = n + k}^{n_i - j_s + 1} \sum_{n_{is} = n + k - j_s + 1}^{n_{is} + j_{ik} - k_1} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{ik} + j_{ik} - j^{sa} - k_2} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}-k_1}^{(n_{is}+j_s-j_{ik}-k_1)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}=n-j_{sa}+1)}$$

$$\frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{ik}-1)!}{(n_{ik}-j_s-1)! \cdot (n_{ik}+j_s-j_{ik}-k_1)!}$$

$$\frac{(n_{ik}) (n_{sa}-1)!}{(j_{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{k_1} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa}) \cdot j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+2}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \right) \cdot \\
& \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
& \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\cdot)} \\
& \sum_{n_i = n + \mathbb{k}_1}^n \sum_{(n_{is} = n + \mathbb{k}_1 - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\cdot)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$



$$\begin{aligned}
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \right. \\
 & \left. \left( \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \right) \right) \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j_s=2)}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{n+lk}^{(n_i-j_s+1)} \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_{sa}^{ik}-lk_1}^{(n_{ik}+j_{sa}^{ik}-lk_1)} \sum_{(n_{ik}+j_{sa}^{ik}-lk_1)}^{(n_{ik}+j_{sa}^{ik}-lk_1)} \sum_{(n_{ik}+j_{sa}^{ik}-lk_1)}^{(n_{ik}+j_{sa}^{ik}-lk_1)} \\
 & \sum_{n_{ik}+lk_2-j_{ik}}^{(n_{sa}=n-j^{sa}+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - lk_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - lk_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{k=1} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-1} \sum_{(n_{ik}=n+k_2-j_{ik}-1)}^{(n_{is}+j_s-j_{ik}-1)} \sum_{(n_{sa}=n-j^{sa})}^{(n_{ik}-j_{ik}-1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
 \end{aligned}$$

$$\sum_{k=1} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

$$D + s - n < l_i \leq D + l_s + j_{sa} - n - 1 - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)}^{(n + j_{sa} - s)} \sum_{j_{ik} = l_{ik} + n - D}^{l_{ik}} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n + j_{sa} - s)} \sum_{n_i = n - j_s + 1}^n \sum_{n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \sum_{j_{ik} = j_{ik} + 1}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \sum_{n_{sa} = n - j^{sa} + 1}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - j_s + 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)}$$

$$\frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!}$$

$$\frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1) \cdot (n_{is}-n_{ik}-j_{ik}-k_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

$$(D > n < n \wedge l_s > 0 \wedge$$

$$j_{sa} \leq j_s - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_s, \dots, j_{sa}^i\} \wedge$$

$$s > 1 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{\binom{()}{j^{sa}=l_{sa}+n-D}} \right)$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
& \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
& \left. \frac{(D + j_{sa} - j_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \right) + \\
& \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(n_i-j_s+1)} \right) \\
& \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - l_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{l=2}^{(j_{ik} - j_{sa}^{ik})}$$

$$\sum_{m=1}^{(l_s + j_{sa}^{ik})} \sum_{n=1}^{(l_s + j_{sa}^{ik})}$$

$$\sum_{p=1}^{n} \sum_{q=1}^{n} (n_{is} = n + k - j_s + 1)$$

$$\sum_{r=1}^{n_{is} + j_{sa}^{ik} - k_1} \sum_{s=1}^{(n_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) -$$

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$$\sum_{k=1}^{\binom{D}{l_s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{l_s+j_{sa}-1}{j_{sa}=l_i+n+j_{sa}-D}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-\mathbb{k}-j_s+1)}^{\binom{n_i-j_s+1}{\mathbb{k}-j_s+1}} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{\binom{n_i-j_s+1}{\mathbb{k}-j_s+1}} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{\binom{D}{l_s}} \frac{(n_i+j_{ik}+j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_{ik} + j_{ik} + j_{sa}^{ik} - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - \dots)!}{(D - \dots - l_i - \dots)! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \right)$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}^{ik}-j_{sa})}^{(n-j_s+1)}$$

$$\sum_{(n+k-j_s+1)}^{(n+k-j_s+1)} \sum_{(n_{is}+j_{ik}-k_1)}^{(n_{is}+j_{ik}-k_1)}$$

$$\sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^i)!}$$

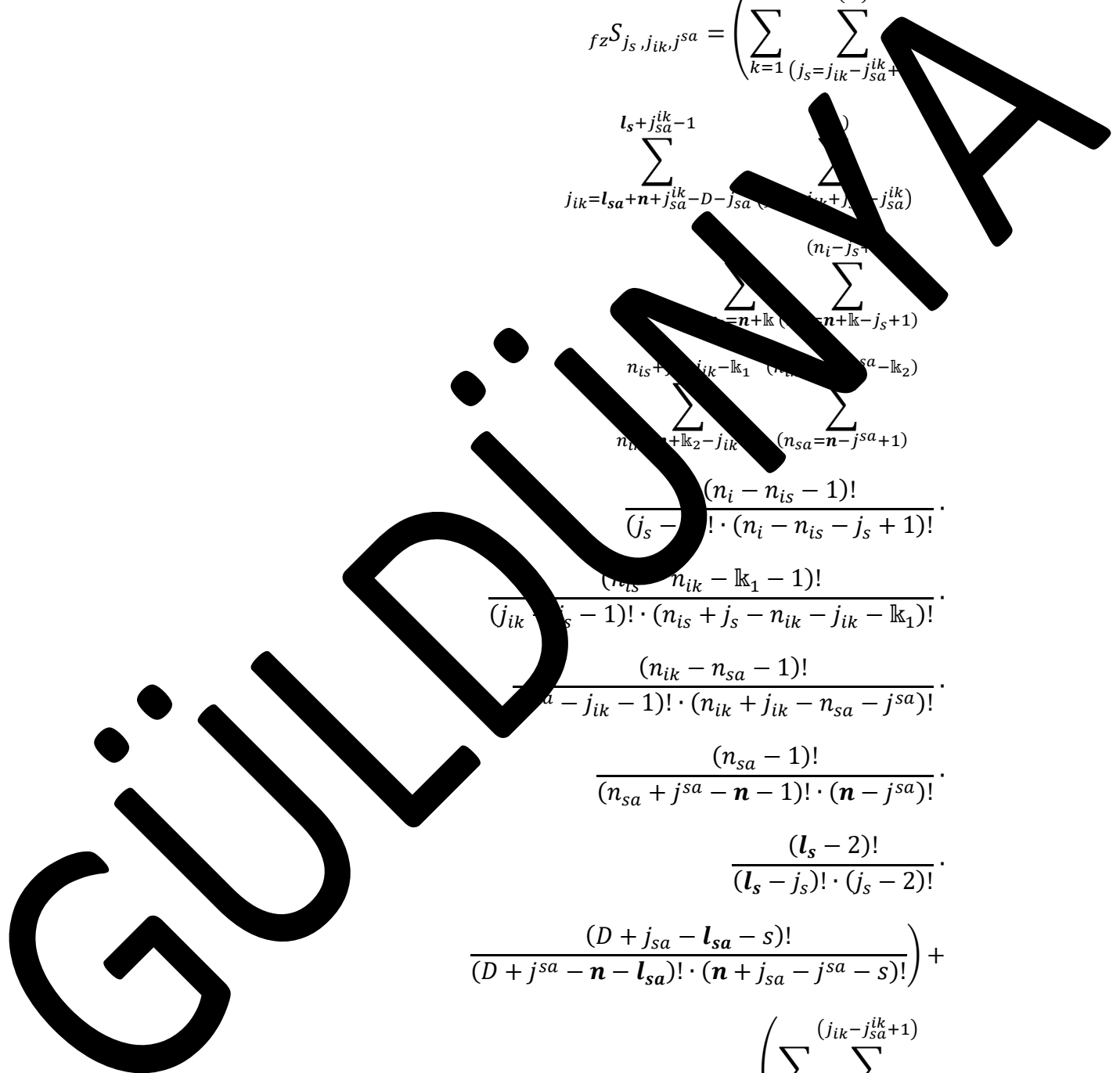
$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa}^i)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa}^i - s)!} \right) +$$

$$\left( \sum_{k=1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j_{sa}=j_{ik}+j_{sa}^{ik}-j_{sa}^i+1)}^{(n+j_{sa}-s)}$$



$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(l_s - 2)!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{k_1} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa})! \cdot (j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - j_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(n_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{ik} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_s - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_s - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j_s)!} + \\
 & \sum_{j_s=2}^{(j_{ik} - j_{sa}^{ik})} \sum_{j_{ik}=l_{sa}+n+j_s}^{j_{ik}+j_{sa}^{ik}-1} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(D-j_{sa})} \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = l_i + n + j_s^{ik} - 1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{sa}^{ik})}$$

$$(n_i - j_s + 1)$$

$$\sum_{(n_{is} = j_s + k - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - k_1}^{( )} \sum_{(n_{sa} = j_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n_{is} - k_1 - k_2)! \cdot (n_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - s < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$(D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{j_s=l_{sa}+n-D-j_{sa}+1}^{(l_s)} \sum_{j_{ik}=j_{sa}-1}^{(j_s)} \sum_{n_i=n+k}^{(n_i-j_s+1)} \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_{ik}-k_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left( \sum_{k=1}^{(l_s)} \sum_{j_s=l_{sa}+n-D-j_{sa}+1}^{(l_s)} \right)$$



$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \\
 & \frac{(n_i-1)}{(j_s-2)(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)(n_i-n_{is}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)!(n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)!(j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})!(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}^{(n+j_{sa}-s)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\frac{\sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!}$$

$$\frac{(j_s - 2)!}{(j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + l_s - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (n_{sa} + j_{sa}^{ik} - j_{sa} - l_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - 1)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=0}^{\infty} \sum_{i_s=l_i+n-D-s+1}^{\infty}$$

$$\sum_{j_s+j_{sa}^{ik}-1}^{( )} (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_Z^S j_s j_{sa} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$



$$\sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j_{sa}=l_{sa}+n)}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\cdot)} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{(\cdot)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - 1)!}{(D + j_s + s - l_i - 1)! \cdot (n + j_{sa} - j_{sa}^s - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_{sa} + j_{sa}^{ik} - j_s \wedge l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + \dots)}^{(\quad)}$$

$$\frac{l_{sa} + n + j_{sa}^{ik} - D - j_{sa} - 1}{\sum_{j_{ik} = j_{sa}^{ik} + 1}^{ik} \dots} \cdot \frac{(n_{sa} - s)}{\sum_{j_{sa} = l_{sa} - (n - D)}^{(n_{sa} - s)}$$

$$\frac{(n_i - j_s)}{\sum_{j_s = n + k}^{(n_i - j_s)}$$

$$\frac{(n_{is} + j_{ik} - k_1)}{\sum_{j_{ik} = n + k_2 - j_{ik}}^{(n_{is} + j_{ik} - k_1)}$$

$$\frac{(n_{sa} - j_{sa} + 1)}{\sum_{j_{sa} = n - j_{sa} + 1}^{(n_{sa} - j_{sa} + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

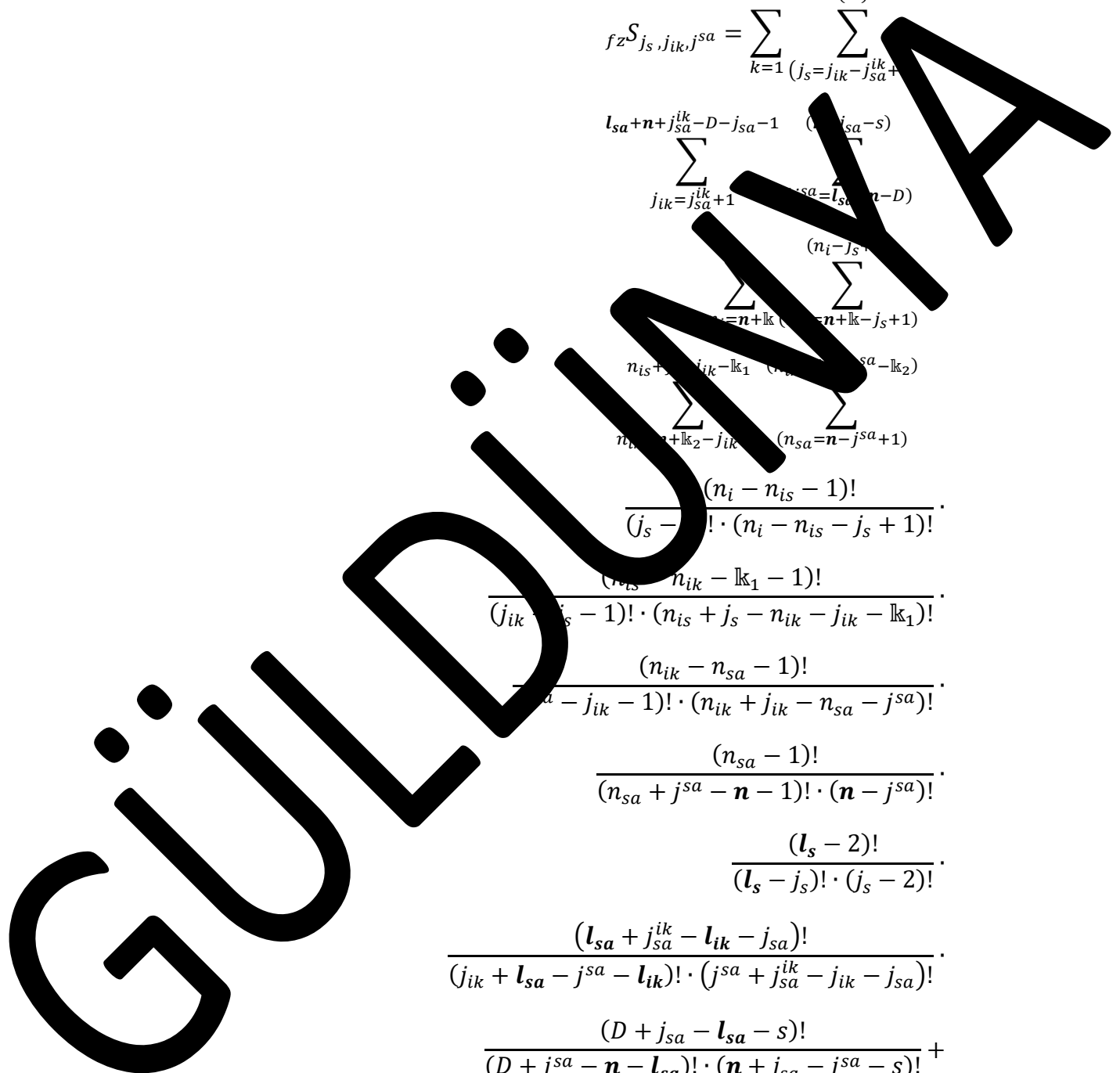
$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}$$



$$\begin{aligned}
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)!(n_i-n_{is}-j_{ik}-k_1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)!(n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+l_{ik}-j^{sa}-l_{ik})!(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} \cdot \\
 & \sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}}
 \end{aligned}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa})!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)$$

$$(D \geq n < n \wedge l_s > 0 \wedge$$

$$j_s \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, n\}$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j_{sa}^s=l_{sa}+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(j_{ik} + j_{sa} - j^{sa} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} - j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa} - s)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_{sa}+\mathbf{n}-D-j_{sa}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\mathbf{n}+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{j_s = j_{sa} + 1}^{(j_s - j_{sa} + 1)} \\
& \sum_{j_{ik} = j_{sa}^{ik} - 1}^{(j_{sa}^{ik} - 1)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{( )} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{( )} \\
& \frac{(l_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, i, j_{sa}} = \sum_{k=1}^{(j_{sa}^{ik}+1)} \frac{(j_{sa}^{ik}+1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_i - j_s + 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=n-j_{sa})}^{n_{is}+j_s-j_{ik}-n_{sa}+j_{ik}-j_s+k_2}$$

$$\frac{(n_i - n_{sa} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s = l_s \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_s\} \wedge$$

$$s > 4 \wedge s = s + 1 \wedge$$

$$\mathbb{k}: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-1} \sum_{\binom{(\cdot)}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_{is}=n+\mathbb{k}-j_s+1)$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 1)!} \cdot \\
 & \frac{(l_{jk} - l_s - j_{sa} + 1)!}{(j_s + l_{jk} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{k=1}^{(j_s)} \sum_{i=1}^{(j_{sa}^{ik} + 1)} \sum_{i_{ik}+n-D}^{l_s+j_s-1} \sum_{i=1}^{(j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i}^n \sum_{k=1}^{(l_i+1)} \sum_{n_i+k-k}^{(n_{is}=n+k-j_s+1)} \sum_{n_i+j_{sa}-j_{sa}^{ik}-k_1}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_{sa} < j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$j_{sa} - j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

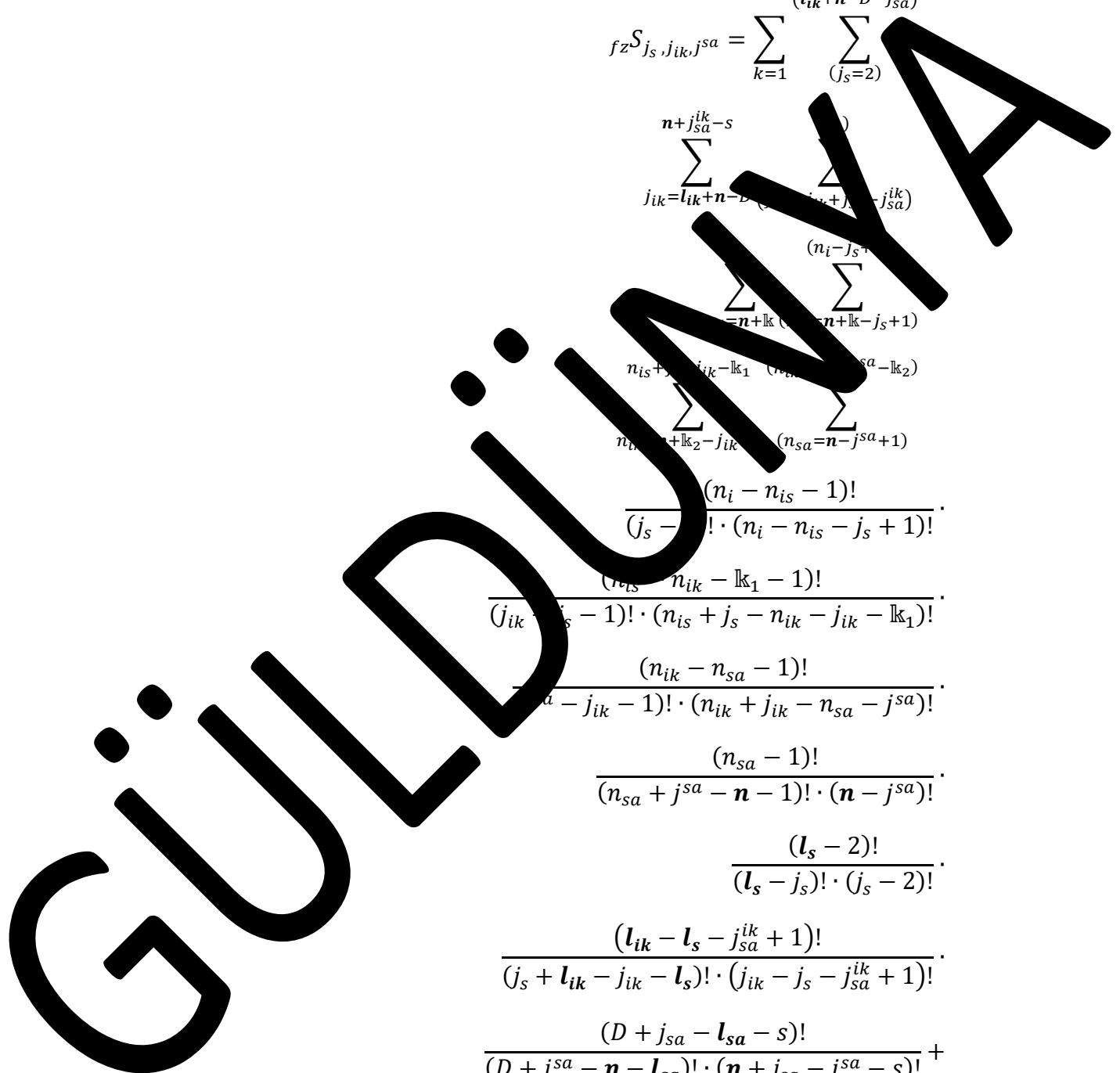


$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(l_{ik+n-D-j_{sa}^{ik}})} \sum_{(j_s=2)}^{(n+j_{sa}^{ik}-s)} \sum_{j_{ik}=l_{ik+n-D-j_{sa}^{ik}}}^{(n_i-j_s+1)} \sum_{(n_{is}+j_{ik}-k_1)}^{(n_{is}+j_{ik}-k_1)} \sum_{(n_{sa}+j_{ik}-k_2)}^{(n_{sa}+j_{ik}-k_2)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}-1)!} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik+n-D-j_{sa}^{ik}+1})}^{(l_s)}$$



$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \binom{(\quad)}{\sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} (\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{ik}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_1})}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
 & \frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-l_{k_1})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} \binom{(\quad)}{\sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} (\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{(\quad)}
 \end{aligned}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa})!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) =$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n + j_{sa} - s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)!(j_{ik} - j_s - j_s + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)!(j_{sa} + j_{sa} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \sum_{k_1=1}^{j_{sa}-1} \sum_{k_2=0}^{j_{sa}-k_1-1} \sum_{k_3=0}^{j_{sa}-k_1-k_2-1} \sum_{k_4=0}^{j_{sa}-k_1-k_2-k_3-1} \sum_{k_5=0}^{j_{sa}-k_1-k_2-k_3-k_4-1} \sum_{k_6=0}^{j_{sa}-k_1-k_2-k_3-k_4-k_5-1} \sum_{k_7=0}^{j_{sa}-k_1-k_2-k_3-k_4-k_5-k_6-1} \sum_{k_8=0}^{j_{sa}-k_1-k_2-k_3-k_4-k_5-k_6-k_7-1} \sum_{k_9=0}^{j_{sa}-k_1-k_2-k_3-k_4-k_5-k_6-k_7-k_8-1} \sum_{k_{10}=0}^{j_{sa}-k_1-k_2-k_3-k_4-k_5-k_6-k_7-k_8-k_9-1} \frac{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D - n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{sa} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{zS}^{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(l_{ik}+n-D-j_{sa})} \sum_{s=2}^{(n+j_{sa}-s)} \sum_{i_1=0}^{n-(j_s+1)} \sum_{i_2=0}^{(n_i-j_s+1)} \sum_{i_3=0}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{i_4=0}^{(n_{sa}-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{2! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

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$$\begin{aligned}
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}} \sum_{(j^{sa}=l_{sa}+n-)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1}^{n_i-j_s+1} \sum_{(n_{sa}=n-j^{sa}+)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}}^{n_i-j_s+1} \sum_{(n_{sa}=n-j^{sa}+)}^{(n_i-j_s+1)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l_s - j_{sa})! \cdot (n - j_{sa} - j^{sa} - l_s)}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge \\ & D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - j_{sa}^{ik} \wedge \\ & D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee \\ & ((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\ & D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee \\ & ((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge \\ & D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge \\ & (D \geq n < n \wedge l = \mathbb{k} > 0 \wedge \end{aligned}$$



$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa} + 1)}^{(\ )} \sum_{(l_s = j_{sa} - 1)}^{(\ )} \sum_{(j_{ik} = j_{sa} + 1)}^{(\ )} \sum_{(n_i = n + \mathbb{k})}^{(\ )} \sum_{(n_{is} = n - j_s + 1)}^{(\ )} \sum_{(n_{ik} = n + j_s - j_{ik} - j_{ik} + 1)}^{(\ )} \sum_{(n_{sa} = n - j_{sa} + 1)}^{(\ )} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=1}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa} + 1)}^{(\ )}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \\
 & \frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)!(n_i-n_{ik}-j_{ik}-l_{k_1})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_i+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)!(n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}-j^{sa}-l_{ik})!(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} \\
 & \sum_{k=1}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}$$

$$\frac{l_{sa} + n + j_{sa}^{ik} - D - j_{sa} - 1}{\sum_{j_{ik} = j_{sa}^{ik} + 1}^{(\quad)}} \frac{(n + j_{sa} - s)}{\sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\quad)}}$$

$$\frac{(n_{i_s} - \mathbb{k})}{\sum_{n_{i_s} = n + \mathbb{k} - j_s}^{(\quad)}} \frac{(n_{i_s} - 1)}{\sum_{(n_{i_s} = n + \mathbb{k} - j_s)}^{(\quad)}}$$

$$\frac{(n_{i_s} - \mathbb{k}_1)}{\sum_{(n_{i_s} = n + \mathbb{k} - j_s)}^{(\quad)}} \frac{(n_{i_s} - \mathbb{k}_2)}{\sum_{(n_{i_s} = n + \mathbb{k} - j_s)}^{(\quad)}}$$

$$\frac{n_{ik} = n + j_{ik} + 1}{(n_{sa} - 1)} \frac{(n_{sa} - 1)}{(n_{sa} - 1)}$$

$$\frac{(n_{i_s} - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_{i_s} - n_{i_s} - j_s + 1)!}$$

$$\frac{(n_{i_s} - n_{i_s} - \mathbb{k}_1 - 1)!}{(j_s - 2)! \cdot (n_{i_s} - n_{i_s} - j_s - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}$$

$$\sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(n + j_{sa} - s)}$$

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$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} + j_s - n - 1)!}{(n_{sa} + j_s - n - 1)! \cdot j^{sa}!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - l_{sa} - j_{sa} - l_{ik} - j_{sa})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l_s = k > 1) \wedge$$

$$j_{sa}^{ik} \neq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-k_1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)!(n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+l_{sa}-j^{sa}-l_{ik})!(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j^{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_s - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_i + n - D - s + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{(j_s-1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(j_s-1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)!(j_{ik} - j_s - 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n_{sa} - 1)! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{n_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_{sa})}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \sum_{(l_s + j_s - 1)}^{( )} \sum_{(j_{sa} = j_s - j_{sa}^{ik} + 1)}^{( )} \sum_{(j_{sa} = j_s - j_{sa}^{ik} + 1)}^{( )} \sum_{(j_{sa} = j_s - j_{sa}^{ik} + 1)}^{( )}$$

$$\sum_{(n_i - j_s + 1)}^{( )} \sum_{(n_i - j_s + 1)}^{( )} \sum_{(n_i - j_s + 1)}^{( )} \sum_{(n_i - j_s + 1)}^{( )}$$

$$\sum_{(n_{ik} = n_{is} + j_s - k_1 - k_2)}^{( )} \sum_{(n_{sa} = j_{sa} - k_1 - k_2)}^{( )} \sum_{(n_{sa} = j_{sa} - k_1 - k_2)}^{( )} \sum_{(n_{sa} = j_{sa} - k_1 - k_2)}^{( )}$$

$$\frac{(n_i + j_{ik} - j_{sa}^s - j_s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - k_1 - k_2)! \cdot (n + k_1 + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_s + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

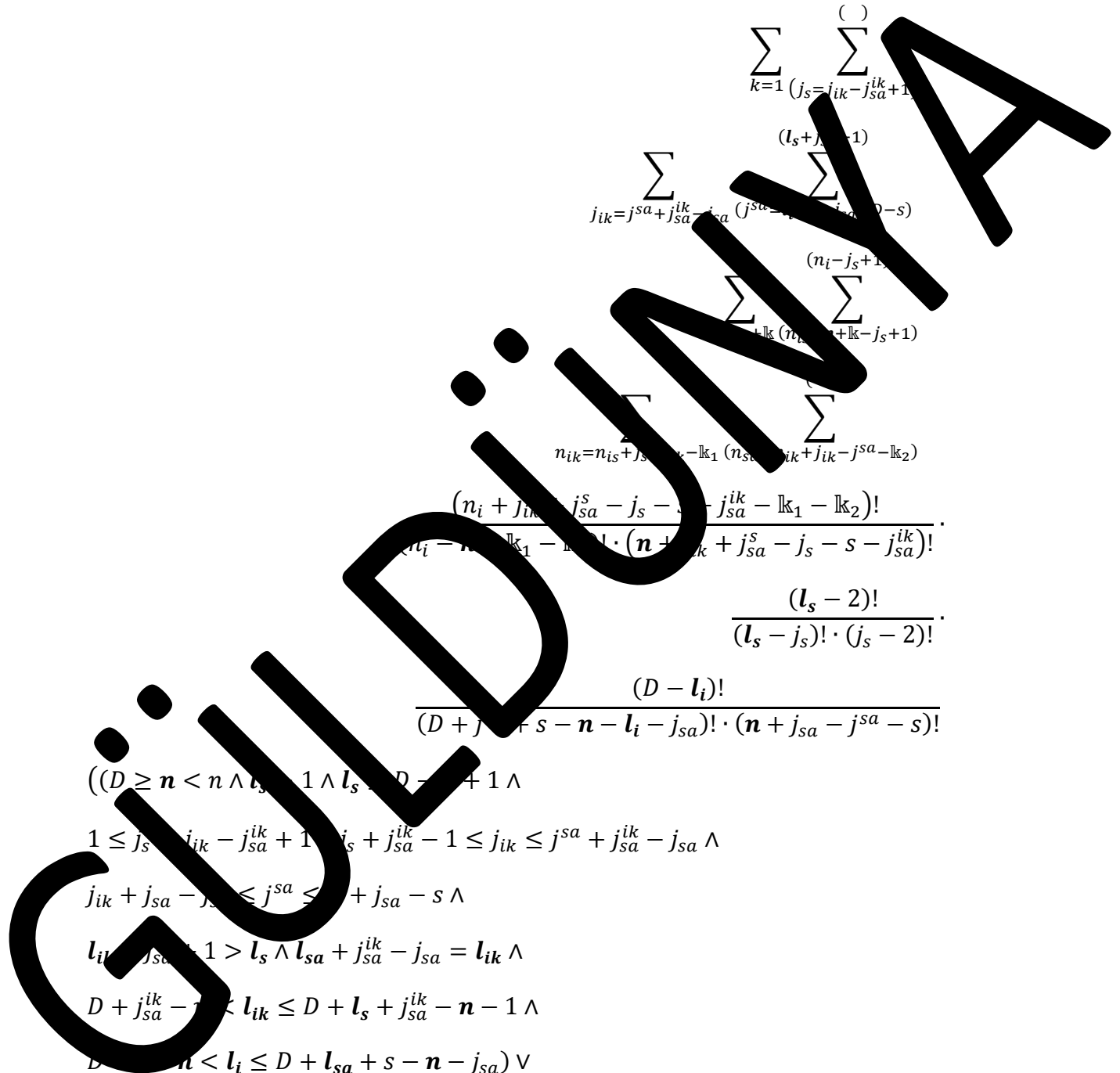
$$D + j_{sa}^{ik} - 1 < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}^{ik}} = \sum_{i=1}^{(j_s-1)} \sum_{(j_s=2)}^{(k+1)}$$

$$\sum_{j_{ik}=l_{sa}+j_{sa}^{ik}-D}^{l_s+j_s-1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik} (j^{sa}=j_{sa}-j_{sa}^{ik})}^{n+j_{sa}^{ik}-s} \sum_{( )}$$

$$\sum_{n+l_k (n_{is}=n_{is}+1)}^{n} \sum_{(n_{is}+1)}$$

$$\sum_{n_{ik}=j_{ik}-j_{ik}^{ik} (n_{ik}+j_{ik}-j^{sa}-l_{k_1})}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(j^{sa}+1)}$$

$$\frac{(n_{is}-1)!}{(j_{ik}-1)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-l_{k_1}-1)!}{(j_{ik}-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 1)!}{(l_s - 1)! \cdot (s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n - j_{sa} - j^{sa} - l_i)}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1)$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1$$

$$D + s - n < l_i \leq D + l_{sa} + s - (n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1)) \wedge$$

$$(E \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j^{sa}} &= \sum_{k=1}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}^{(l_s)} \\
 &\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{(n)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-j_{ik}^{sa}} \sum_{(n_{sa}=n-j_{sa}^{sa}+j_{ik}^{sa}-k_2)}^{(n_i-j_s+1)} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa} \wedge$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$\begin{aligned}
 f_{zS} S_{j_s, j_{ik}, j^{sa}} &= \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+l_{k_2})}^{n_{ik}+j_s-j_{ik}-l_{k_1}+j_{ik}-l_{k_2}} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - n_{ik} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \\
 &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)}
 \end{aligned}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)! \cdot (l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{k_2} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa}) \cdot j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{\binom{()}{}}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_i+n+j_{sa}-D-s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{\binom{()}{}}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa}^{sa})!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s=2)}^{(n + j_s - s)} \sum_{j_{ik} = l_s + j_s - D}^{(n)} \sum_{n_i = n + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + j_s - j_{ik}}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \sum_{n_{sa} = n - j_{sa} + 1}^{(n_{sa} - 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \frac{n_{is}+j_s-j_{ik}-j_{sa}^{ik}+j_{ik}^{sa}-j_{sa}^{sa}-k_2}{n_{ik}=n+k_2-j_{sa}^{ik}} \cdot \frac{(n_i-j_s+1)}{(n_{is}=n-k-j_s+1)} \\
 & \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s+1)!} \\
 & \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s+n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}+j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > \dots \wedge$

$l_i \leq D + s - n \wedge$

$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$

$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - n - l_s - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \\
 & \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{sa})} \sum_{(j^{sa} = j_{sa} + 1)}^{(l_{sa})} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{( )} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z S_{j_s, j_{sa}^{ik}} = \sum_{k=1}^{( )} (j_s = j_{ik} - j_{sa}^{ik} + 1)$$

$$\sum_{j_s = j_{sa}^{ik} + j_{sa}^{ik} - j_{sa}}^{(l_{sa})} (j_{sa} = j_{sa} + 1)$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{\binom{()}{j_s = j_{ik} - j_{sa}^{ik} + 1}} \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{sa})} (j^{sa} = l_i + j_{sa} - D - s) \sum_{i=0}^{(n_i - j_{sa} + 1)} \sum_{n+kk}^{(n_i = n_i + 1)} \sum_{n = n_{is} + j_s - kk_1}^{(n_{sa} = n_{sa} - j_{sa} - kk_2)} \frac{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik} - kk_1 - kk_2)!}{(n_i - n - kk_1 - kk_2)! \cdot (n + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > n \wedge l_s \leq D - n - 1 \wedge$$

$$1 < j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_s \leq n + j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa}^{ik} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - 1 \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=j_{sa}+1)}^{(\quad)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}-l_{k_1}}^{(n_{is}+j_s-j_{ik}-l_{k_2})} \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{(n_{sa}=n-j^{sa}+1)}$$

$$\frac{(n_{is}-n_{is_1}-1)!}{(j_s-2)! \cdot (n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(n_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-n_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=j_{sa}+1)}^{(\quad)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - j_{sa}^i \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_1 : z = 2 \wedge (\mathbb{k}_1 = \mathbb{k}_1 + 1) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - 1)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - 1)! \cdot (n + j_s - j^{sa} - s)!} \cdot \sum_{j_s=j_{ik}-j_{sa}+1}^{j_s=j_{ik}-j_{sa}+1} \sum_{j_{sa}=l_i+n+j_{sa}-D-s}^{j_{sa}=l_i+n+j_{sa}-D-s} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{(\cdot)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\dots} \sum_{j_{ik}=j_{sa}^{ik}}^{\dots} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{\dots} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - 1)!}{(D + j_s + s - l_i - 1)! \cdot (n + j_{sa} - j_{sa}^s - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^{ik} \wedge n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_{sa} + j_{sa}^{ik} - j_{sa}^{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + 1 - n < l_i \leq D - l_s + s - 1 - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 1) \wedge$$

$$j_{sa} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$4 \wedge l_s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f^z S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_1})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})}$$

$$\frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-l_{k_1})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+l_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1}^{\infty} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{( )}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa})!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) =$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{j_{sa}=j_{ik}+1}^{(j_{sa})} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{(j^{sa})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(n_{sa})}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$n \geq n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{i=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{i=j_{sa}^{ik}+1}^{( )} \sum_{(j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{i=1}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{( )}$$

$$n_{is}+j_{ik}-\mathbb{k}_1 \quad (n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)$$

$$n_{ik}=n_{sa}-j_{ik}+1 \quad (n_{sa}=n-j_{sa}+1)$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

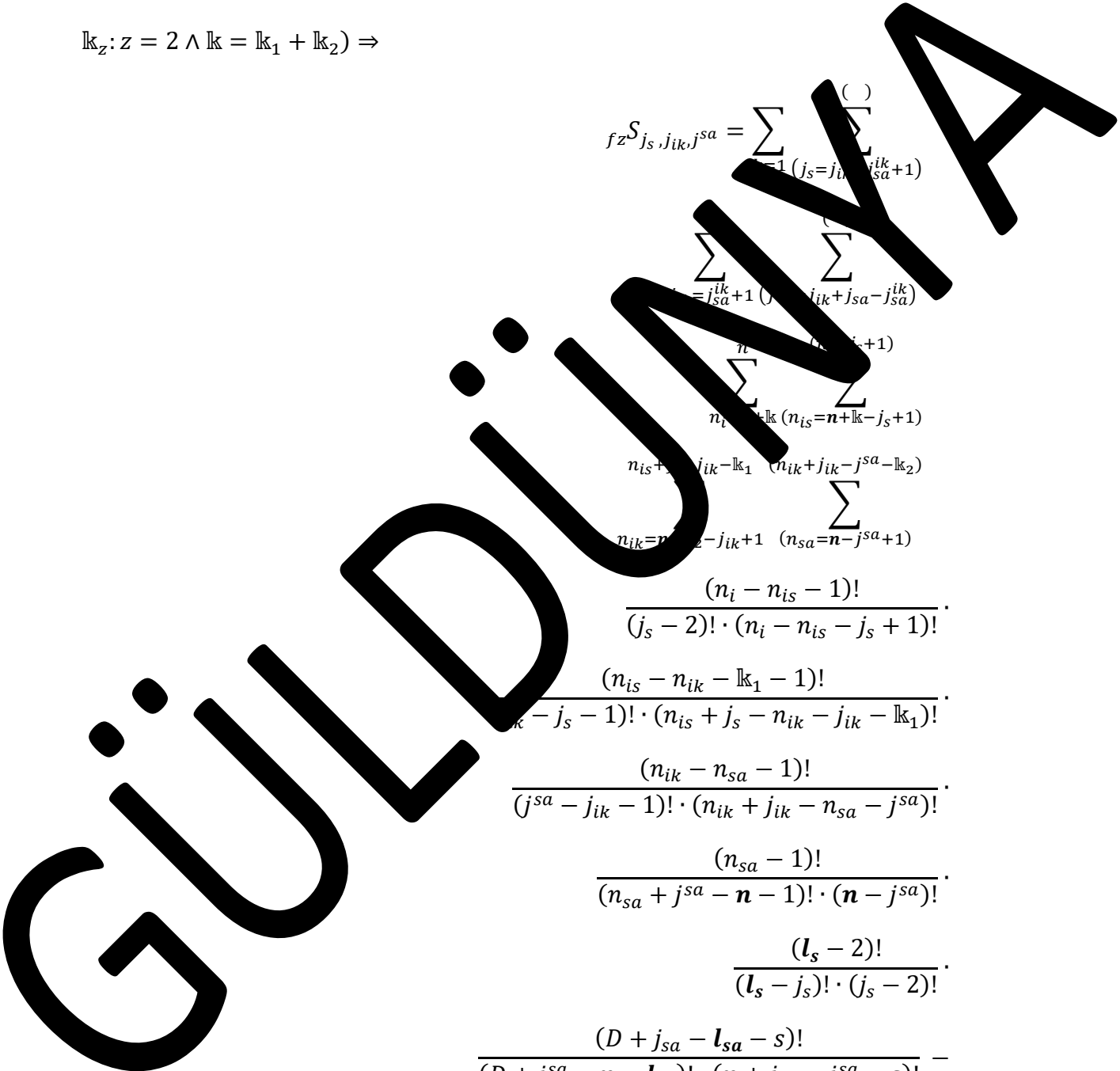
$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$



$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k_2})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - j_s - 1)!}{(D + j^{sa} + s - n - j_{sa}^{ik} - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} \leq j_{ik} \leq j_s + 1 + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_s - s = l_{ik} \wedge l_{sa} + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(n \geq n < n) = l_k >$$

$$j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - j_{sa}^{ik} - 1 < j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s - 1 \wedge$$

$$l_{k_2} - z = z \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa}-j_{sa}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa})^{l_{sa} - s}}{(n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(l_{sa}-j_{sa}+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}
 \end{aligned}$$

GÜLDEN

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^S j_{sa}^{ik} = \sum_{k=1}^{(l_{sa}-j_{sa}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{(l_{sa} - j_{sa} + 1)} \sum_{(j_s = l_i + n - D - s + \dots)} \dots$$

$D \geq n < n \wedge l_s = 1 \wedge l_s = D - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + \dots \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \dots + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s - j_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$

$l_i \leq D + s - n \wedge$

$D > n - l_i \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n-j_s+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa})}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n-j_s+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$



$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s > l_s \wedge$

$D + s - n < l_i \leq D + l_s + s - n - 1$

$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + 1 \wedge$

$\mathbb{k}_1 : z = 2 \wedge (\mathbb{k}_1 = \mathbb{k}_1 + 1) \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{\binom{(\cdot)}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - 1)! \cdot (n + j_s - j^{sa} - s)!} \cdot \\
 & \sum_{n_i = n + \mathbb{k}}^{\mathbb{k} + 1} \sum_{j_s = l_i + n - D - s + 1}^{\mathbb{k} + 1} \sum_{j_{sa} = j_{ik} - 1}^{( )} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}) \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{n_{is} = n + \mathbb{k} - j_s + 1}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^s j_s j_{sa} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k_1=1}^{j_s} \sum_{k_2=1}^{j_s - k_1} \sum_{i_s=n+k_2}^{n+k_1} \sum_{i_k=n+k_2 - j_{ik} + 1}^{j_{ik} - k_1} \sum_{i_k=n+k_2 - j_{ik} + 1}^{n - j_s + 1} \sum_{i_k=n+k_2 - j_{ik} + 1}^{n_{ik} + j_{ik} - j^{sa} - k_2} \sum_{i_k=n+k_2 - j_{ik} + 1}^{n_{sa} - n - j^{sa} + 1} \\
& \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
& \frac{(n_{i_s} - n_{i_k} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} + j_s - n_{i_k} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{i_k} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{i_k} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$

$$\sum_{k=1}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(j_{sa}=j_{sa}+1)}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\cdot)} \sum_{(n_{ik}+j_{ik}-j_{sa}-1)}^{(\cdot)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - 1)!}{(D + j_s + s - l_i - 1)! \cdot (n + j_{sa} - j_{sa}^s - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_{sa} + j_{sa}^{ik} - j_s \wedge l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{j_{ik}+j_{sa}^{ik}-j_{sa}^{ik}}^{( )} \sum_{n_i=n+k}^{(n_i-j_s)} \sum_{n_{is}=n+k_1}^{(n_{is}-k_2)} \sum_{n_{sa}+k_2-j_{ik}}^{(n_{sa}=n-j_{sa}^{ik}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa}^{ik})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa}^{ik} - n - 1)! \cdot (n - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{ik} - l_{ik})! \cdot (j_{sa}^{ik} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa}^{ik} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!} \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{( )} \sum_{(n_{sa}=n_{ik}+j_{sa}-j_{sa}^{ik}-\mathbb{k}_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{ik} - \mathbb{k}_1)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - j_s)!}{(D + j_{sa} + s - n - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\ & l_i \leq (D + j_{sa} - n) \vee \\ & ((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - j_{sa}^{ik} \leq j_{ik} \leq j_{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge \\ & l_i \leq (D + j_{sa} - n)) \wedge \end{aligned}$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1) \wedge I = \mathbb{k} > 0 \wedge j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_{sa})} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{(l_{sa})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}-k_1}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+k_2-j_{ik})}^{(n_i-j_s+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - 1)!}$$

$$\frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_{sa})} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_{sa})}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - \dots$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$(D \geq n < n \wedge l = \mathbb{k} > 0$

$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1, j_{sa}^s < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^l\} \wedge$

$s \cdot 4 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: \dots = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{(j_s=1)}^{(\quad)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \cdot$$

$$\sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik} (j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=n+l_{k_1} (n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^n \sum_{n_{sa}=n+l_{k_2} (n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}+1)}^n$$

$$\frac{(n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik} (j^{sa}=j_{sa})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{( )} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa})} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_s}^{(\ )} \sum_{(j^{sa}=j_{sa})}^{(\ )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1)}^{(\ )} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{(\ )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - n - l_i)!}{(D + j_{sa} - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} < j_{ik} \leq j_{sa}^s + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa}^s \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa}^s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n - j_{sa}^s \leq D + s - n$$

$$(n \geq n < n) \wedge \mathbb{k} > 0$$

$$j_{sa}^s - j_{sa}^i - 1 \wedge j_{sa}^{ik} - j_{sa}^i - 1 < j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, \dots, j_{sa}^{ik}, j_{sa}^i, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s - l_s \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}}$$

$$\frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - j_{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - l_{k_1})!}$$

$$\frac{(l_{sa} - j^{sa})!}{(l_{sa} - j^{sa})! \cdot (n - j^{sa} - n - 1)! \cdot (n - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{( )} \sum_{(j_{sa}^{sa}=j_{sa})}^{( )}$$

$$\sum_{n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{( )} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D > n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{sa}^{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge l = l_{k_1} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=1)}^{(\cdot)} \right)$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-k_2)}$$

$$\frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - k_1 + 1)!} \cdot \frac{(n_{sa} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} +$$

$$\left( \sum_{k=1} \sum_{(j_s=1)}^{(\cdot)} \right)$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - k_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

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$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^n \sum_{(j_s=1)}^{( )} \sum_{j_{sa}^{ik} (j^{sa}=j_{sa})} \sum_{n_i=n+k}^n \sum_{(n_{ik}=j_{ik}-k_1, n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{( )}$$

$$\frac{(n_i + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - n - k_1 - k_2)! \cdot (n + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + j_s + j_{sa}^{ik} - 1 \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s$$

$$l_{ik} - j_{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = k) \wedge$$

$$j_{sa} \leq j_{sa} - 1 \wedge j_{sa} - j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$l_{sa} = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^n \sum_{(j_s=1)}^{( )} \right)$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
 & \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \left( \frac{(l_{ik} - j_{sa} - 1)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - l_{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
 & \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
 \end{aligned}$$

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$$\sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik} (j^{sa}=j_s)}^{(\ )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\ )} \sum_{n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2}^{(\ )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{i-\mathbb{k}_1})!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{ik})!} \cdot \frac{(n - l_i)!}{(n - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = 1 \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_2: 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik} (j^{sa}=j_s)}^{(\ )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\begin{aligned}
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \left( \sum_{k=1}^{(\cdot)} \sum_{(j_s=1)}^{(\cdot)} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}^{sa}-j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n=n+\mathbb{k}}^n \sum_{(n_{ik}=n-j_{ik}+\mathbb{k}_1)}^{n-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \left( \sum_{k=1}^{(\cdot)} \sum_{(j_s=1)}^{(\cdot)} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{(j^{sa}=j_{sa})}^{(\cdot)}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - l_i)!}$$

$((D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$l_i \leq D + s - n) \vee$

$(D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{sa} - j_{sa} + 1 > l_s \wedge$

$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n)) \wedge$

$(D \geq n < n \wedge l_s = 0 \wedge$

$j_{sa}^s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: (j_s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^i) \wedge$

$l_s > 4 \wedge j_s \leq s + \mathbb{k} \wedge$

$\mathbb{k}_2: z \leq 2 \wedge \mathbb{k}_2 \leq \mathbb{k}_1 + 1) \Rightarrow$

$$f^z \mathcal{S}_{j_s, j_{ik}, j_{sa}} = \sum_{k=1} \sum_{\binom{()}{j_s=1}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{\binom{()}{j_{sa}^s=j_{sa}}}^{(l_{sa})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}}$$

$$\frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - j_{ik} - 1)!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - l_{ik})!} \cdot$$

$$\frac{(l_{sa} - j_{sa} - l_{ik} - j_{sa} - 1)!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik} - 1)! \cdot (j^{sa} + j_{ik} - j^{sa})!} \cdot$$

$$\frac{(n + j_{sa} - n - s)!}{(n + j_{sa} - n - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{( )} \sum_{(j_{sa}^{sa}=j_{sa})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{( )} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \vee$$

$$(D \geq n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$\begin{aligned} & \left( \sum_{k=1}^{l_{ik}} \sum_{j_s=1}^{(j_s)} \right) \\ & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_{sa}=j_{sa})}^{(j_{sa})} \\ & \sum_{n=\mathbb{k}}^{(n_i - j_{sa} - \mathbb{k}_1 + 1)} \sum_{(n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_{sa} = n - j^{sa} + 1} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) + \\ & \left( \sum_{k=1}^{(j_s)} \sum_{j_s=1}^{(j_s)} \right) \\ & \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}} \sum_{(j_{sa}=j_{sa}+1)}^{(l_{sa})} \end{aligned}$$

$$\sum_{n_i=n+l_k}^n \sum_{\substack{(n_i-j_{ik}-l_{k_1}+1) \\ (n_{ik}=n+l_{k_2}-j_{ik}+1)}} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}}$$

$$\frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_{ik} - j_{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - l_{ik})!} \cdot$$

$$\frac{(l_{sa} - j_{sa} - j^{sa})!}{(j_{ik} + j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{ik} - j^{sa})!} \cdot$$

$$\frac{(D - j_{sa} - l_{sa} - s)!}{((n + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!)} -$$

$$\sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_{sa}=j_{sa})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{\substack{( ) \\ (n_{ik}=n_i-j_{ik}-l_{k_1}+1)}} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$(n - l_s) \wedge n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} -$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = (\mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=1)}^{( )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + j_{sa}^{ik} - j^{sa} - l_{ik})! \cdot (j^{sa} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{(\dots)} \sum_{(j_s=1)}^{(\dots)} \sum_{j_{sa}^{ik} (j^{sa}=j_{sa})}^{(\dots)} \sum_{n_i=n+\mathbb{k} (n_{ik}=n_{ik}-j_{ik}-\mathbb{k}_1, j_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\dots)} \frac{(n_i + j_{sa}^s - j_s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - \dots + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + \dots \wedge j_s + j_{sa}^{ik} - 1 \leq \dots \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq n \wedge \dots \leq n - s$$

$$l_{ik} = j_{sa}^{ik} + 1 = l_s \wedge \dots + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D > n \wedge l_i \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\{j_s, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$



$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\cdot)} \sum_{(j_s=1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik} (j^{sa}=j_s)}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-1}^{n_{ik}+j_{ik}-j^{sa}-1}$$

$$\frac{(n_i - n_{ik} - 1) \cdot (n_{ik} - n_{sa} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik})! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!}$$

$$\sum_{k=1}^{(\cdot)} \sum_{(j_s=1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik} (j^{sa}=j_s)}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \binom{D}{\sum_{k=1}^s (j_s = j_{ik} + l_s - l_{ik})} \cdot \binom{l_{ik} + j_{sa} - j_{sa}^{ik}}{\sum_{k=1}^s (l_{ik} + j_{sa} - j_{sa}^{ik})} \cdot \binom{n_i - j_s + 1}{\sum_{k=1}^s (n_i = n + k)} \cdot \binom{n_i + j_{sa} - j_{sa}^{ik} - k_1}{\sum_{k=1}^s (n_{is} = n + k - j_s + 1)} \cdot \binom{n_{ik} + j_{ik} - j_{sa} - k_2}{\sum_{k=1}^s (n_{ik} = n + k_2 - j_{ik} + 1)} \cdot \binom{n_{sa} - 1}{\sum_{k=1}^s (n_{sa} = n - j_{sa} + 1)} \cdot \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left( \sum_{k=1}^s \binom{()}{\sum_{k=1}^s (j_s = j_{ik} + l_s - l_{ik})} \right)$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=j_{sa}+2)}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}-1)!} \cdot \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=l_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s - 1)!}{(j_{ik} + l_{sa} - j^{sa} - j_s - 1)! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \right) \cdot \\
 & \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\quad)} \\
 & \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{(j^{sa} = j_{sa} + 1)}^{(\quad)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\quad)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

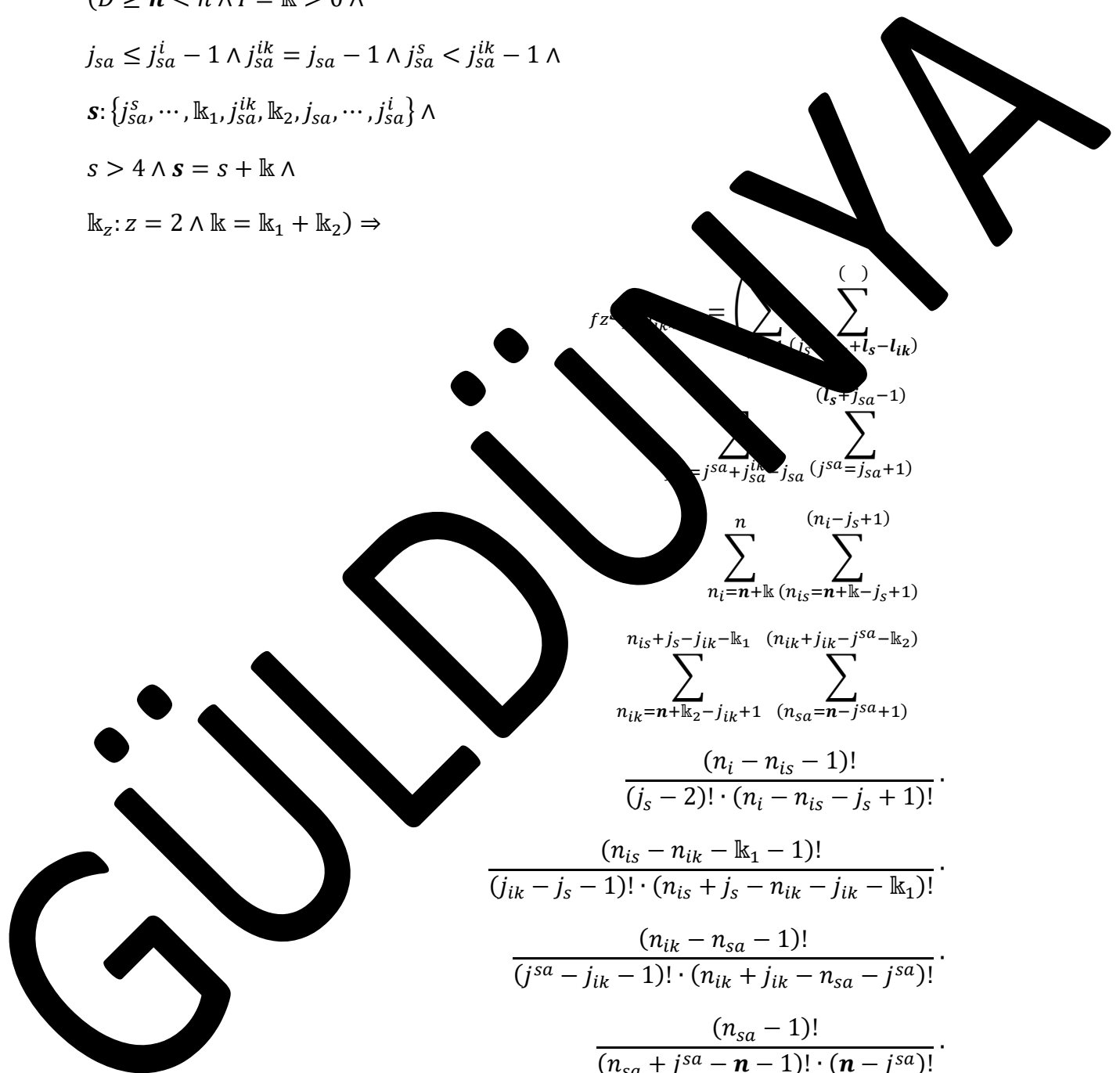
$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$fz = \sum_{j_s=1}^{(j_s+l_s-l_{ik})} \sum_{j_{sa}=j_{sa}^{ik}-j_s}^{(j_{sa}^{ik}-j_s+1)} \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$



$$\begin{aligned}
 & \left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \right. \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=j_{sa}+j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j_{sa}+j_{sa}^{ik})}^{(n_{ik}+j_{ik}-l_{k_2})} \\
 & \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s-j_{ik}-l_{k_1}-1)!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \right.
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(j_s - 2)!}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{sa} - j_{sa})!}{(j_i + l_{sa} - j^{sa} - j_{sa})! \cdot (j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(l_s + j_{sa} - 1)}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{sa}^{sa}}} = \left( \sum_{k=1}^{\dots} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\dots)} \right)$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_{sa}^{ik}} \sum_{(j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\dots)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$



$$\begin{aligned}
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{l_{ik}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(n_i-j_s+1)} \right. \\
 & \sum_{j_{ik}=j_{sa}+1}^{l_{ik}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}+j_{ik}-l_{k_1}}^{(n_{ik}+j_{ik}-l_{k_1})} \sum_{(n_{ik}+j_{ik}-l_{k_1})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}+l_{k_2}-j_{ik}}^{(n_{ik}+l_{k_2}-j_{ik})} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_i-j_s+1)} \\
 & \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \right. \\
 & \left. \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \right. \\
 & \left. \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \right. \\
 & \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \right. \\
 & \left. \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \right. \\
 & \left. \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \right. \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{(n_i-j_s+1)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k2})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k1})!}{(n_i - n - l_{k1} - l_{k2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(n + l_{sa} - j_{sa} - l_i)!}{(D + j_{sa}^s - l_{sa})! \cdot (n + l_{sa} - j_{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - l_i$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - l_{k1} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l_s > 0 \wedge$$

$$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: (j_s, \dots, l_{k1}, j_{sa}^{ik}, l_{k2}, j_{sa}, \dots, j_{sa}^{ik})$$

$$j_s > 4 \wedge l_s = s + l_k \wedge$$

$$l_{kz}: z = 2 \wedge l_{kz} = l_{kz} - l_{k2} \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1}^{l_s} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(n_{sa} + j_s - n - 1)! \cdot j^{sa}!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{(j_s)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(j_s)} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa})} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
 \end{aligned}$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - j_{sa}^{ik})!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j_{sa}^{ik})!} \cdot$$

$$\sum_{j_{sa}^{ik}=1}^{l_s + j_{sa} - 1} \sum_{j_{sa}^{ik}=1}^{(n_{sa} - l_{ik})} \binom{(n_{sa} - l_{ik})}{j_{sa}^{ik} - 1} \binom{(n_{sa} - l_{ik})}{(n_{sa} - l_{ik}) - (j_{sa}^{ik} - 1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)} \binom{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}{k_2}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$l_s \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fzS_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1}^{(\mathbb{k} - j_{sa}^{ik} + 1)} \sum_{j_s=2}^{(j_s - j_{sa}^{ik} + 1)} \sum_{l_s=1}^{(j_s - j_{sa}^{ik} + 1)} \sum_{n_i=1}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}+j_{sa}-j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=j_{sa}-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{sa}-n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) + \left( \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{j_s=2}^{(l_{ik} - j_{sa}^{ik} + 1)} \right)$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(l_{sa})}^{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i+l_k-j_s+1)} \\
 & \sum_{n_{is}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{is}+j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)!(n_{is}+j_{ik}-n_{sa}-j_{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+l_{ik}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \right) - \\
 & \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i+l_k-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{( )}
 \end{aligned}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa})!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} \leq j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(l_s)} \sum_{j_s=2}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(j_s)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left( \sum_{k=1}^{(l_s)} \binom{(l_s)}{j_s - k} \right)$$

$$\sum_{j_{ik}=j_s+1}^{(l_{sa})} \binom{(l_{sa})}{j_{sa} - j_{ik} + 1} \binom{(l_s)}{j_s - j_{ik} + 1}$$

$$\sum_{n_i=n+k} \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \binom{(n_i-j_s+1)}{j_{ik}-k_1} \binom{(n_{ik}+j_{ik}-j^{sa}-k_2)}{j_{ik}-k_1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

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$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{( )} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i - j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - 1)!}{(n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s = n - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{s_1} - 1 \leq j_{ik} \leq n + j_{sa}^{s_1} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}^{s_1} - j_{sa}^{ik} \leq j_{sa}^{s_1} + n + j_{sa} - s \wedge$

$l_{k_1} - j_{sa}^{ik} + 1 = l_{k_1} \wedge l_{sa}^{s_1} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$D + l_{k_1} - n < l_{sa} \leq D + l_s + l_{k_1} - n - 1 \wedge$

$D \geq n \wedge l = l \wedge I = l_k > 1 \wedge$

$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{s_1} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^{s_1}, \dots, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$

$> 4 \wedge s + l_k \wedge$

$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \right)$$

$$\sum_{j_{ik}=j_{sa}+j_{sa}^{ik}-j_{sa}} \binom{l_{ik}+j_{sa}-j_{sa}^{ik}}{j_{sa}=l_{sa}+n-D} \sum_{n_i=n+k}^n \binom{n_i-j_s+1}{n_{is}=n+k-j_s} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \binom{n_{ik}+j_{ik}-j_{sa}-k_1}{n_{sa}=n-j_{sa}+1} \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-n_{ik}-j_{ik}-k_1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j_{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \left( \frac{(D+j_{sa}-l_{sa}-s)!}{(D+n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} \right) +$$

$$\left( \sum_{k=1}^{\binom{)}{}} \sum_{j_s=j_{ik}+l_s-l_{ik}}^{\binom{)}{}} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \binom{l_{ik}+j_{sa}-j_{sa}^{ik}}{j_{sa}=l_{sa}+n-D} \sum_{n_i=n+k}^n \binom{n_i-j_s+1}{n_{is}=n+k-j_s+1} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \binom{n_{ik}+j_{ik}-j_{sa}-k_2}{n_{sa}=n-j_{sa}+1} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (l_{sa} + j_{sa}^{lk} - j_{sa} - l_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{j_s=1}^{j_s} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{sa}^{lk}+1}^{(n+j_{sa}-s)} (j^{sa}=l_{ik}+j_{sa}-j_{sa}^{ik}+1)$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=1}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}} \sum_{\substack{(l_{ik}+j_{sa}^{ik}-j_{sa}^{ik}) \\ j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa} \\ (j^{sa}=l_{sa}+j_{sa}^{ik}-j_{sa}^{ik}-s)}}$$

$$\sum_{\substack{(n_i-j_s+1) \\ \sum_{\mathbb{k}=(n_i-j_s+1)+\mathbb{k}-j_s+1}}}$$

$$\sum_{\substack{(n_{ik}=n_{is}+j_{sa}^{ik}-\mathbb{k}_1) \\ (n_{sa}^{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n_{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_{sa}^{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > l_s \wedge l_s \leq n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - 1 \leq l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(n_{sa}^{ik} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)} \sum_{n_i=n+\mathbb{k}} \sum_{(n_i=n+\mathbb{k}-j_s+1)} \sum_{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j^{sa})} \sum_{i_{ik}+1} \sum_{(i_{ik}=n-j^{sa}+1)} \frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) +$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\left( \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})} \sum_{j_{ik}=j_{sa}^{ik}+1} \sum_{(j^{sa}=l_{sa}+n-D)} \sum_{n_i=n+\mathbb{k}} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(j_{ik} + j_{sa}^{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_s+j_{sa})}^{(\mathbf{n}+j_{sa}-s)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - j_{sa}^{ik})!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j_{sa}^{ik})!}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j^{sa}=l_i+n+j_{sa}-D-s} \sum_{j_{sa}^{ik}=l_s-l_{ik}} \sum_{j_{sa}^{ik}=l_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$l_i \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1}^{(\quad)} \binom{\quad}{j_s=j_{ik}+l_s-l_{ik}} l_{ik} \right)$$

$$= l_{sa} + n + \dots - D - j_{sa} \dots - j_{sa}^{ik}$$

$$\binom{\quad}{n_i=n+\mathbb{k}} \binom{\quad}{n_{is}=n+\mathbb{k}-j_s+1}$$

$$\binom{\quad}{n_{is}+j_s-\mathbb{k}-\mathbb{k}_1} \binom{\quad}{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\binom{\quad}{n_{ik}=n+\mathbb{k}_2-j_{ik}+1} \binom{\quad}{n_{sa}=n-j_{sa}+1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) +$$

$$\left( \sum_{k=1}^{(\quad)} \binom{\quad}{j_s=j_{ik}+l_s-l_{ik}} \right)$$

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$$\begin{aligned}
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)!(n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+j_{sa}^{ik}-j_{sa}-l_{ik})!(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} + \sum_{k=1}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - 1)! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot \\
 & \left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \right) \cdot \\
 & \sum_{k=1}^{l_{ik}} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{()} \\
 & \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_{ik}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{()} \\
 & \sum_{n_{ik} = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_a^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$\begin{aligned} S_{j_s, j_{ik}} &= \sum_{k=1}^{( )} (j_s = j_{ik} + l_s - l_{ik}) \\ &= \sum_{l_s = l_{sa} + n + j_{sa}^{ik} - 1}^{( )} \sum_{( )} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}) \\ &= \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \\ &= \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\ &= \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ &= \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\ &= \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\ &= \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\ &= \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\left( \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \right)$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_s-j_{sa}^{ik}+1)}^{(n+j_{sa}-s)}$$

$$(n_{is}+1)$$

$$(n_{is}+n+l_k-1)$$

$$(n_{is}+j_s-j_{ik}-l_{k_1}+n_{is}+j_{ik}-j^{sa}-l_{k_2})$$

$$n_{ik}=j_{sa}^{ik}-j_{ik}+1$$

$$(n_{is}-1)!$$

$$(j_s-2)! \cdot (n_{is}-j_s+1)!$$

$$(n_{is}-n_{ik}-l_{k_1}-1)!$$

$$(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!$$

$$(n_{ik}-n_{sa}-1)!$$

$$(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!$$

$$(n_{sa}-1)!$$

$$(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!$$

$$(l_s-2)!$$

$$(l_s-j_s)! \cdot (j_s-2)!$$

$$(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!$$

$$(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!$$

$$(D + j_{sa} - l_{sa} - s)!$$

$$(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)! +$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

$$l_{sa}+n+j_{sa}^{ik}-D-j_{sa}-1$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{( )}$$

$$(n+j_{sa}-s)$$

$$\sum_{(j^{sa}=l_{sa}+n-D)}^{( )}$$

$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - l_{sa} - j_s - 1)! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}} \sum_{\binom{()}{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}} \sum_{\binom{()}{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{\binom{()}{}} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}
 \end{aligned}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)} \sum_{j_{ik} = j_s + l_{ik} - l_s}^{( )} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \right)$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!}$$

$$\left( \sum_{k=1}^{l_{sa} - j_{sa}^{ik}} \sum_{l_{sa} + n - D - j_{sa}^{ik}} \right)$$

$$\sum_{i_k = j_s + l_{sa}^{ik}} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)$$

$$\sum_{n_i = n + k}^{n} \sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} (n_{is} = n + k - j_s + 1)$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n - j_{ik} - k_1} \sum_{(n_{ik} + j_{ik} - j^{sa} - k_2)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} (n_{sa} = n - j^{sa} + 1)$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{sa}+n-D)}$$

$$\sum_{i=n+l_k}^n \sum_{(n_{is}=n+l_k+1)}$$

$$\sum_{n_{ik}=l_{k2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_{sa}=j^{sa}+1)}$$

$$\frac{(n_{is} - l_{k1} - 1)!}{(n_{is} - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - l_{k1} - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k1})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

GÜLDÜZÜMÜ



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_j)}{(D + j^{sa} + s - n - l_s - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$D + j_{sa} - n < l_{sa} \leq D + j_{sa} - n - 1$

$(D \geq n < n \wedge l_s = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1$

$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(n_{is} - 2)!}{(j_s - 2)!} \cdot \\
 & \left( \frac{(n_{is} + j_{sa} - 1 - s)!}{(n_{is} + j^{sa} - n_{sa} - 1)! \cdot (n_{is} + j_{sa} - j^{sa} - s)!} \right) + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{i=1}^{(l_{sa} + n_{sa} - j_{sa})} \sum_{(j_s=2)}$$

$$\sum_{(j_{ik} + l_{ik} - l_s) \dots (n-D)}$$

$$\sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n+j_{sa}-s)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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$$\sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{( )} \sum_{(n_{ik}+j_{ik}-j^{sa}=\dots)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \dots)! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik} - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s + j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - \dots)!}{(D + s - \dots - l_i - \dots)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq \dots - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq \dots + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > \dots \wedge l_{sa} + j_{sa}^{ik} - j_{sa} \leq l_{ik} \wedge$$

$$l_{ik} \geq D + j_{sa}^{ik} - n \wedge \dots \leq D + s - n \wedge$$

$$(D \geq n < \dots \wedge I = \mathbb{k} > \dots \wedge$$

$$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$\dots \wedge \dots - s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \\
 & \frac{(n_{is}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{sa}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} +
 \end{aligned}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa})}^{(l_{sa})} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
 \end{aligned}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa} + 1)}^{(\cdot)} \\
 & \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_s + j_{sa} - 1)} \sum_{(j^{sa} = j_{sa} + 1)}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\cdot)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^s j_s^{sa} = \sum_{k=1}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{(j_s=2)}^{j_{sa}^{ik}}$$

$$\sum_{j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j_{sa} = j_{ik} + l_{sa} - l_{ik})}^{( )}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \frac{\sum_{j_s=2}^{\Delta} \frac{(l_s - j_s)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{(l_s)} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{(l_s)} \frac{(l_s - j_s)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} + j_s - k_1 - 1)!}{(n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - k_2 - 1)!}{(n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{(l_s)} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{(l_s)}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^s - \mathbb{k}_1)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^s - \mathbb{k}_1)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - 1)!}{(D + j_{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} \leq j_{ik} \leq j_{sa}^{ik} + j_{sa} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq j_{sa}^{ik} + j_{sa} - n \leq D + s - n$$

$$n \geq n < n \wedge \mathbb{k} > 0$$

$$j_{sa} - j_{sa}^i - 1 \wedge j_{sa}^{ik} - j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, \dots, j_{sa}^i, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s$$

$$\mathbb{k}_z \cdot z = z \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{is} + l_{k_1} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{( )} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$S_{i_s, j_s} = \left( \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \right)$$

$$\sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_s + j_{sa} - 1)} \sum_{(j_{sa} = j_{sa} + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \left( \sum_{k=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{i_s=2}^{(l_s - 1)} \right) \\
 & \sum_{j_{sa}=j_{sa}+l_{ik}}^{(l_s - 1)} \sum_{j_{sa}=j_{sa}+2}^{(l_s - 1)} \\
 & \sum_{i_s=2}^{(l_s - 1)} \sum_{i_s=2}^{(l_s - 1)} \\
 & n_{i_s} - k \cdot \mathbb{k} \quad (n_{i_s} = n + \mathbb{k} - j_s + 1) \\
 & n_{i_s} + j_{ik} - \mathbb{k}_1 \quad (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2) \\
 & n_{ik} = n_{i_s} - j_{ik} + 1 \quad (n_{sa} = n - j^{sa} + 1) \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{i_s} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa})} \sum_{(j^{sa}=l_s+j_s)}^{(l_{sa})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \sum_{(n_{sa}=n-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_{ik} - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
 \end{aligned}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = j_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2) \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j^{sa}}} = \left( \sum_{k=1} \sum_{\binom{(\cdot)}{j_s=j_{ik}-j_{sa}^{ik}+1}} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{\binom{(\cdot)}{j^{sa}=j_{ik}+l_{sa}-l_{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(n_i-j_s+1)}{n_{is}=n+\mathbb{k}-j_s+1}}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}{n_{sa}=n-j^{sa}+1}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} +$$

$$\sum_{j_s=2}^{(j_{ik}-j_{sa})}$$

$$\sum_{j_{sa}=j_{sa}^{lk}+1}^{l_s+j_s-1} \binom{()}{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!}$$

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$$\begin{aligned}
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(l_s)} \frac{(l_s - j_s + 1)!}{(j_s - j_s + 1)! \cdot (n_i - j_s + 1)!} \cdot \\
 & \sum_{j_{ik} = l_s + j_{sa}^{ik}}^{l_{sa} + j_{sa}^{ik} - j_{sa}} \frac{(n_i - j_s + 1)!}{(j_s - j_s + 1)! \cdot (n_i - j_s + 1)!} \cdot \\
 & \sum_{n_{ik} = l_{k_2} - j_{ik} + 1}^{n_{is} + j_s - l_{k_1}} \frac{(n_i - j_s + 1)!}{(j_s - j_s + 1)! \cdot (n_i - j_s + 1)!} \cdot \\
 & \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - n_{sa} - l_{k_2})} \frac{(n_i - j_s + 1)!}{(j_s - j_s + 1)! \cdot (n_i - j_s + 1)!} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - j_s + 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \Big) - \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )}
 \end{aligned}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k_2})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - 1)!}{(D + j^{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik} \leq j_{sa}^{ik} + j_{sa} - j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{ \dots, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^{ik} \}$$

$$j_s > 4 \wedge j_s \leq s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_{k_z} \leq l_{k_2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=2)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - j_{ik} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_{sa} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \left( \frac{(D + j_{sa} - j_{sa} - s)!}{(n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left( \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \right) \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - j_s - j_{sa} - j_{ik} - j_{sa}^{ik} + 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - j_{sa} - j_{ik} - j_{sa}^{ik} + 1)!} \cdot \\
& \sum_{j_{ik} + j_{sa}^{ik} - 1}^{(l_s)} \sum_{j_s=2}^{(l_s)} \sum_{j_s=1}^{(l_s)} \sum_{j_s=2}^{(l_s)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{( )} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \\
& \frac{(n_{ik} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$n > n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1}^{(j_s - j_{ik} - 1)} \binom{l_s + j_{sa} - 1}{j_{ik} - j_s + k} \sum_{j_{ik} - j_s + k}^{(n - D)} \binom{n - j_s + 1}{n - j_s + k} \sum_{n_i = n + k}^{(n_i + k - j_s + 1)} \binom{n_i + j_s - k - k_1}{n_i + k - j_{ik} + 1} \sum_{n_{sa} = n - j_{sa} + 1}^{(n_{ik} + j_{ik} - j_{sa} - k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \right) \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)} \right) \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{sa}+n)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1}^{(n_{is}+j_s-j_{ik}-k_1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)} \\
 & \frac{(n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+1)!} \cdot \frac{(n_{ik}-k_1-1)!}{(j_s-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}) (n_{sa}-1)!}{(j^{sa}-k_1-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_{sa})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - j_{sa} - s)!}{(\mathbf{n} + j^{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_i+\mathbf{n}+j_{sa}-D-s)}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\ )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j} = \left( \sum_{k=1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \right)$$

$$\sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{( )} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{( )}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \left( \sum_{k=1}^{j_{ik} - j_{sa}^{ik}} \sum_{i_s=2}^{j_{ik} - j_{sa}^{ik}} \right) \\
 & \sum_{j_{ik}=l_s + j_{sa}^{ik} - 1}^{l_s + j_{sa}^{ik} - 1} \sum_{i_s=1}^{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik}} \binom{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik}}{i_s} \\
 & \sum_{n_i=1}^n \sum_{n_{ik}=1}^{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik}} \binom{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik}}{n_{ik}} \binom{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik}}{n_i} \\
 & \sum_{n_{is}=n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik} - n_{ik} + 1}^{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik} - n_{ik} + 1} \binom{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik} - n_{ik} + 1}{n_{is}} \\
 & \sum_{n_{ik}=1}^{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik} - n_{is} + 1} \binom{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik} - n_{is} + 1}{n_{ik}} \\
 & \sum_{n_{is}=n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik} - n_{ik} + 1}^{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik} - n_{ik} + 1} \binom{n - j_{sa}^{ik} - j_{ik} + l_{sa} - l_{ik} - n_{ik} + 1}{n_{is}} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
 \end{aligned}$$

GÜLDÜZMAYA



$$\begin{aligned}
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa})}^{n_{ik}-j_{ik}-l_{k_2}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{ik} - n_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}
 \end{aligned}$$

GÜLDENYA

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + j_{sa}^{ik} + j_{sa} - n$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^i = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(n_{is} - 2)!}{(j_s - 2)!} \cdot \\
 & \left( \frac{(n_{is} + j_{sa} - 1 - s)!}{(D + j^{sa} - n - 1)! \cdot (n_{is} - j^{sa} - s)!} \right) + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜMÜK

$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{i=1}^{(l_{sa} + n_{sa} - j_{sa})} \sum_{(j_s=2)}^{(j_s)} \frac{(\quad)}{j_{ik}^{(j_s)} \cdot l_{sa} + n_{sa} + j_{sa}^{(j_s)} - j_{sa} \quad (j^{sa} = j_{ik} - l_{sa} - l_{ik})} \\
 & \sum_{n_i = n + k_1}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k_1 - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
 \end{aligned}$$

GÜLDÜZYAN

$$\sum_{k=1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_i)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa})}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik})! \cdot (n_{ik} + j_{ik} - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(n - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - 1)!}{(n_{is} + s - n - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s = n - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j_{ik} < n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > 0 \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq n + l_s + j_{sa}^{ik} - n - 1 \wedge$

$D \geq n < n \wedge l = k > 1 \wedge$

$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$> 4 \wedge s + k \wedge$

$k_z: z = 2 \wedge k = k_1 + k_2) \Rightarrow$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)!(n_i-n_{ik}-j_{ik}-k_1)} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)!(n-j^{sa})!} \cdot \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_s-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} \right) + \\
 & \left( \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)} \right) \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}
 \end{aligned}$$

GÜLDENWA

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{j_s=1}^{(l_s + j_{sa})} \sum_{j_{sa}^{ik}=1}^{(j_{ik} + j_{sa} - j_s + 1)} \sum_{j_{ik}=l_s - l_{sa} - j_{sa}^{ik} + 1}^{(j_s + j_{sa} - D - s)} \sum_{n_i=1}^{(n + j_{sa} - j_s + 1)} \sum_{n_{sa}=n_{ik} + j_{ik} - j^{sa} - k_2}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)} \frac{(n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\geq n < l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$j_s - j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$



$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \frac{(n_i - j_{ik} + 1)!}{(n_i + \mathbb{k} - (n_{is} + n + \mathbb{k} - j_{ik} + 1))!} \frac{(j_{ik} - \mathbb{k}_1 + j_{ik} - j^{sa} - \mathbb{k}_2)!}{(n_{ik} = n_{is} - j_{ik} + 1) (n_{sa} - j^{sa} + 1)!} \frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \frac{(n_{is} - n_{is} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \left( \sum_{k=1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \right)$$

GÜLDENYA

$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{is} + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\sum_{k=1}^{\sum_{(j_s=2)}^{(l_s)}}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s) \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s) \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_s - 1)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{j_s=j_{ik}-j_{sa}+1}^{j_s+l_{sa}-1}$$

$$\sum_{j_{ik}+j_{sa}-D-s}^{l_s+j_s-1} \binom{()}{j^{sa}=j_{ik}+l_{sa}-l_{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \left( \sum_{k=1}^n \sum_{(j_s + k + n - D - j_{sa}^{ik} + 1)} \right)$$

$$\sum_{j_{ik} = j_s + j_{sa} - 1}^n \sum_{(j_{sa} = j_{ik} + l_{sa} - l_{ik})}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{is} + j_s - j_{ik} - k_1}^{(n_{ik} + j_{ik} - j_{sa} - k_2)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1} \sum_{(n_{sa} = n - j_{sa} + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) +$$

$$\begin{aligned}
 & \left( \sum_{k=1} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)} \right. \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-l_{k_1}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(j_{ik}-j_s-l_{k_2})}^{(j_{ik}-j_s-l_{k_2})} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{ik}=n+l_{k_2}-j_{ik}} \sum_{(n_{sa}=n-j^{sa}+j_{ik})}^{(n_{sa}=n-j^{sa}+j_{ik})} \\
 & \frac{(n_{sa}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}+j_s-1)!} \\
 & \frac{(n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1} \sum_{(j_s=2)}^{(l_{ik}+n-D-j_{sa}^{ik})} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}
 \end{aligned}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})}$$

$$\frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot$$

$$\frac{(n_{i_s} - n_{i_k} - l_{k_1} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} + j_s - j_{i_k} - l_{k_1})!} \cdot$$

$$\frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_{s_a} - j^{s_a})!} \cdot$$

$$\frac{(n_{s_a} + j_{i_k} - n - 1)!}{(l_s - 2)!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!}{(n_{i_k} + l_{k_2} - j_{i_k} - j_{s_a}^{i_k})! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot$$

$$\left( \frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j_s - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!} \right) -$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s)}$$

$$\sum_{j_{i_k}=j_s+j_{s_a}^{i_k}-1}^{( )} \sum_{(j^{s_a}=j_{i_k}+l_{s_a}-l_{i_k})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{i_k}=n_{i_s}+j_s-j_{i_k}-l_{k_1}}^{( )} \sum_{(n_{s_a}=n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})}^{( )}$$

$$\frac{(n_i + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^{\mathcal{S}_{j_s, j_{ik}, j^{sa}}} = \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(l_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} +$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(l_{sa})} \sum_{j_{ik}+j_{sa}^{ik}+l_{sa}-l_{ik}}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\ )}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{ik} + j_{sa} - j_s)}$$

$$\sum_{(j_s = j_{sa} + 1)}^{(n_i + 1)}$$

$$\sum_{(n + k)}^{(n_i + 1)}$$

$$\sum_{(n = n_{is} + j_s - k_1)}^{(n_{sa} - l_{sa} - j_{sa} - k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$(D - l_i)!$$

$$\frac{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > l_s \wedge l_s \leq D - n - 1 \wedge$$

$$1 < j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_s \leq n + j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa}^{ik} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$l_i \leq D + s - 1 \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{ik}^{sa})}^{(l_{sa})}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$n_{is} + j_s - j_{ik} - \dots + j_{ik} - \dots - k_2)$$

$$\sum_{n_{ik} = n + k_2 - j_{ik}} \sum_{(n_{sa} = n - j^{sa})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{( )}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s = l_s \wedge$

$l_i \leq D + s - n \wedge$

$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + 1 \wedge$

$\mathbb{k}_1 : z = 2 \wedge (\mathbb{k}_1 = \mathbb{k}_1 + 1) \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{\binom{(l_{sa})}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_s - 1)!}{(j_{ik} + l_{sa} - j^{sa} - j_s - 1)! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa}^{ik} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{( )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2)$$

$$f^z \mathcal{S}_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = l_{sa} + n - D)}^{(l_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik}} \sum_{(j_s = l_{ik} + j_{sa} - l_{ik})}^{(n + j_{sa} - j_s)}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(\ )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\ )}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{ik} + j_{sa} - j_s)} \sum_{(j_s = j_{sa} + n - D)}$$

$$\sum_{n+l_k}^n \sum_{(n_{is} = n + l_k + 1)}^{(n_i + 1)}$$

$$\sum_{(n_{is} = n + j_s - k_1)}^{(\ )} \sum_{(n_{is} = n + j_s - k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j_s - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge \\ & 1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s) \wedge \\ & (l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\ & D + s - n < l_{sa} \leq D + l_s + s - n - 1) \vee \\ & ((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge \\ & 1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s) \wedge \\ & (l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\ & D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge \\ & (D \geq n < n \wedge l = k > 0 \wedge \end{aligned}$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S j_s, j_{ik}, j^{sa} = \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

$$l_{sa}+n+j_{sa}^{ik}-D-j_{sa}^i-1 \quad (n+j_{sa}^i-s)$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{( )} \quad (j_{sa}=l_{sa}+j_{sa}^i)$$

$$\sum_{n_i=n+\mathbb{k}_1}^n \quad (n_i-j_s+1)$$

$$\sum_{n_{ik}=n-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \quad (n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)$$

$$\sum_{(n_{sa}=n-j^{sa}+1)}^{(n_i-n_{is}-1)!}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}+j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} +$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)!(n_i-n_{is}-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)!(n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)!(j_s-2)!} \cdot \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(l_{sa}+l_{sa}-j^{sa}-l_{ik})!(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} \cdot \sum_{k=1}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}} \sum_{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}}
 \end{aligned}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa})!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)$$

$$(D \geq n < n \wedge l_s > 1 \wedge \mathbb{k} > 0 \wedge$$

$$j_s \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, n\}$$

$$s > 4, \mathbb{k} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)}^{(n + j_{sa} - s)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_{sa}+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(n_{ik} + j_{sa}^{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa})!} \cdot \sum_{k=1}^{l_{ik} - j_{sa}^{ik} + 1} \sum_{j_s = j_{sa} + 1}^{l_{ik} - j_{sa}^{ik} + 1} \binom{()}{j_{ik} - l_{ik} - l_s} \sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}} \sum_{n_i = n + k}^n \sum_{n_{is} = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2} \binom{()}{l_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$n_{sa} > 1 \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

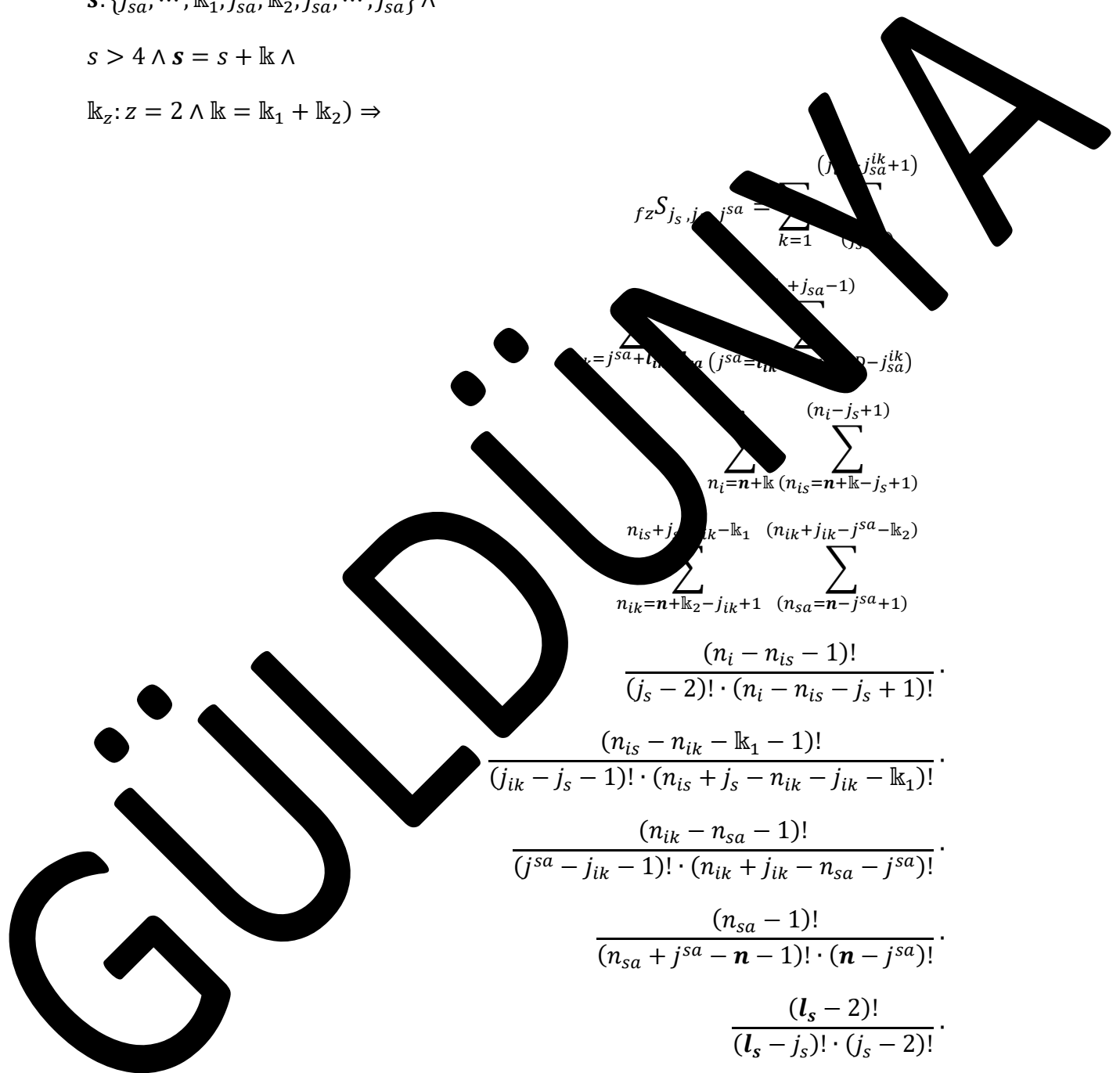
$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, i}^{j_{sa}} = \sum_{k=1}^{(j_s - j_{sa}^{ik} + 1)} \frac{(j_s - j_{sa}^{ik} + 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_i - j_s + 1)!}{(n_i - n_{is} - \mathbb{k}_1 - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$



$$\begin{aligned}
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(n+j_{sa}-s)} \sum_{(j^{sa}=l_s+j_s)}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_s+1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{sa}=n-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{( )} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-1)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 1)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s = l_s \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$

$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_s\} \wedge$

$s > 4 \wedge s = s + 1 \wedge$

$\mathbb{k}: z = 2 \wedge \dots = \mathbb{k}_1 + \dots \Rightarrow$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-s}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_i)!} \sum_{k=1}^{l_s+1} \sum_{j_s=j_{ik}+1}^{j_{sa}^{ik}+1} \sum_{l_{ik}=l_{ik}+n-D}^{l_s+1} \sum_{j_{sa}^{ik}=j_{ik}+l_{sa}-l_{ik}}^{j_s+1} \sum_{n_{ik}+k}^{n_{is}+k} \sum_{n_{is}=n+k-j_s+1}^{n_{is}+k} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$\geq n < n \wedge l_s > 1 \wedge l_i \leq D - n + 1 \wedge$

$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$j_s - j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$

$(D \geq n < n \wedge I = k > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{ik+n-D-j_{sa}^{ik}})} \sum_{(j_s=2)}^{(n+j_{sa}^{ik}-s)} \sum_{j_{ik}=l_{ik+n-D} (j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(n+j_{sa}^{ik}-s)} \frac{(n_{ik}+l_{ik} (n_{is}=n+l_{ik}-j_{sa}^{ik}))}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{ik}-l_{ik}-1)!}{(n_{is}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j_s-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik+n-D-j_{sa}^{ik}+1})}^{(l_s)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n+j_{sa}^{ik}-s)} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(n+j_{sa}^{ik}-s)}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j_s - n - 1)!}{(l_s - 2)! \cdot (n_{sa} + j_s - n - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + j_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

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$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s \leq l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1, \dots, s < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = \dots, \mathbb{k} \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 \vee \mathbb{k}_2) \Rightarrow$$

$$f_Z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{\dots} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\dots)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(l_s + j_{sa} - 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\begin{aligned}
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(j_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(j_{ik} + j_{sa}^{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa})! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{( )} \\
 & \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = l_s + j_{sa})}^{(l_{sa})} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{sa} - j_s)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} \cdot$$

$$\sum_{i=0}^{(j_s - j_{sa} - l_{ik})} \binom{(j_s - j_{sa} - l_{ik})}{i} \cdot$$

$$\sum_{j_s = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - 1)} \binom{(l_s + j_{sa} - 1)}{j_s} \cdot$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \binom{(n_i - j_s + 1)}{n_i - n - k} \cdot$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \binom{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)} \cdot$$

$$\frac{(n_{ik} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D > 1) \wedge n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, j_{sa}^{ik}} = \sum_{k=1}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{s + j_{sa}^{ik} - 1} \sum_{(j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(l_{sa})}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j_{sa} + 1)}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{k=1}^{l_s} \sum_{j_s=j_s - l_{ik}}^{l_s - l_{ik}} \sum_{j_{sa}=j_{sa}^{ik}-1}^{l_s + j_{sa}^{ik} - 1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa} - j_{sa} - j_{sa}^{ik}} \sum_{n_i=n_i - l_{ik}}^{n_i - l_{ik} - j_s + 1} \sum_{n_{is}=n_{is} + k}^{n_{is} + k} \sum_{n_{sa}=n_{ik} + j_{ik} - j^{sa} - k_2}^{n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$j_s - j_{sa}^{ik} - 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$l_{sa} \leq D + j_{sa} - n \wedge l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f^z S_{j_s, \dots, j_{sa}} = \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)}$$

$$\sum_{(j_{ik}=j_s+l_{ik}-l_s)}^{(l_s)} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(l_s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(j_{sa}=j_s-j_{sa}-j_{sa}^{ik})}$$

$$\sum_{i=0}^n \sum_{n+l_k}^{(n_{is}=n+l_k+1)}$$

$$\sum_{n_i=n_{is}+j_s-l_{k_1}-l_{k_2}}^{(n_{is}=n+l_k+1)}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

- $((D \geq n < n + 1 \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$
- $D + j_{sa} - n - l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$
- $D - n - 1 \leq l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$
- $(D \geq n < n + 1 \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$
- $D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z = \sum_{j_{ik}, j_{sa}} \sum_{n_{ik}} \sum_{(j_s = j_{ik} + l_s - l_{ik})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_{ik} + j_{sa}^{ik} - j_{sa}} \sum_{(j_{sa} = l_{sa} + n - D)}^{(l_s + j_{sa} - 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j_{sa} + 1)}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=1}^{( )} \sum_{j_s=j_{ik}+l_{ik}}^{( )} (j_s - l_{ik}) \\
& \frac{(l_s + j_{sa}^{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \sum_{j_{ik}=j_{sa}^{ik}}^{(j_{sa}=l_s+j_{sa})} (j_{sa} - l_{ik}) \\
& \sum_{k_1=0}^{j_s+1} \sum_{k_2=0}^{j_s+1} (n_{is} + k_1 + k_2 - j_s + 1) \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$

$$\sum_{k=1}^{\binom{D-n}{j_s=j_{ik}+l_s-l_{ik}}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+k}^n \sum_{n_{is}=n-k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{\binom{D-n}{n_{ik}+j_{ik}-j^{sa}}} \frac{(n_i+j_{ik}+j_{sa}^s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - n)!}{(D - n + s - l_i - j_s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge \\ & D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge \\ & (D + s - n - l_i \leq D + l_i + s - n - j_{sa}) \vee \\ & (D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge \\ & j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge \\ & D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1) \vee \\ & (D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge \end{aligned}$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_{z}^{S_{j_s, j_{ik}^{sa}}} = \sum_{k=1}^{( )} (j_s = j_{ik} + l_s - l_{ik})$$

$$l_{sa} + n - j_{sa}^{ik} - D - j_{sa} \quad (n + j_{sa} - s)$$

$$j_{ik} - j_{sa}^{ik} + 1 \quad \sum_{(j^{sa} = l_{sa} + n - D)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(n+j_{sa}^{ik}-s)}^{(n-j_s+1)}$$

$$\sum_{(n_{ik}+j_s^{sa}-l_{k_1})}^{(n_{ik}+j_s^{sa}-l_{k_2})} \sum_{(n_{ik}+j_s^{sa}-l_{k_2}-j_{ik}+1)}^{(n_{sa}=n-j^{sa}+1)} \sum_{(n_i-n_{is}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

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$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}} \sum_{\binom{(\cdot)}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+k}^n \sum_{\binom{(n_i-j_s+1)}{n_{is}=n+k-j_s}}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{sa}-k_2}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - n + 1)!}{(D + j^{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge l_s > 1 \wedge l_s \leq D - n + 1)$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - j_{sa}^{ik} \wedge$$

$$D - s - n < l_s \leq D + l_{sa} + s - n - j_{sa} \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$



$$(D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

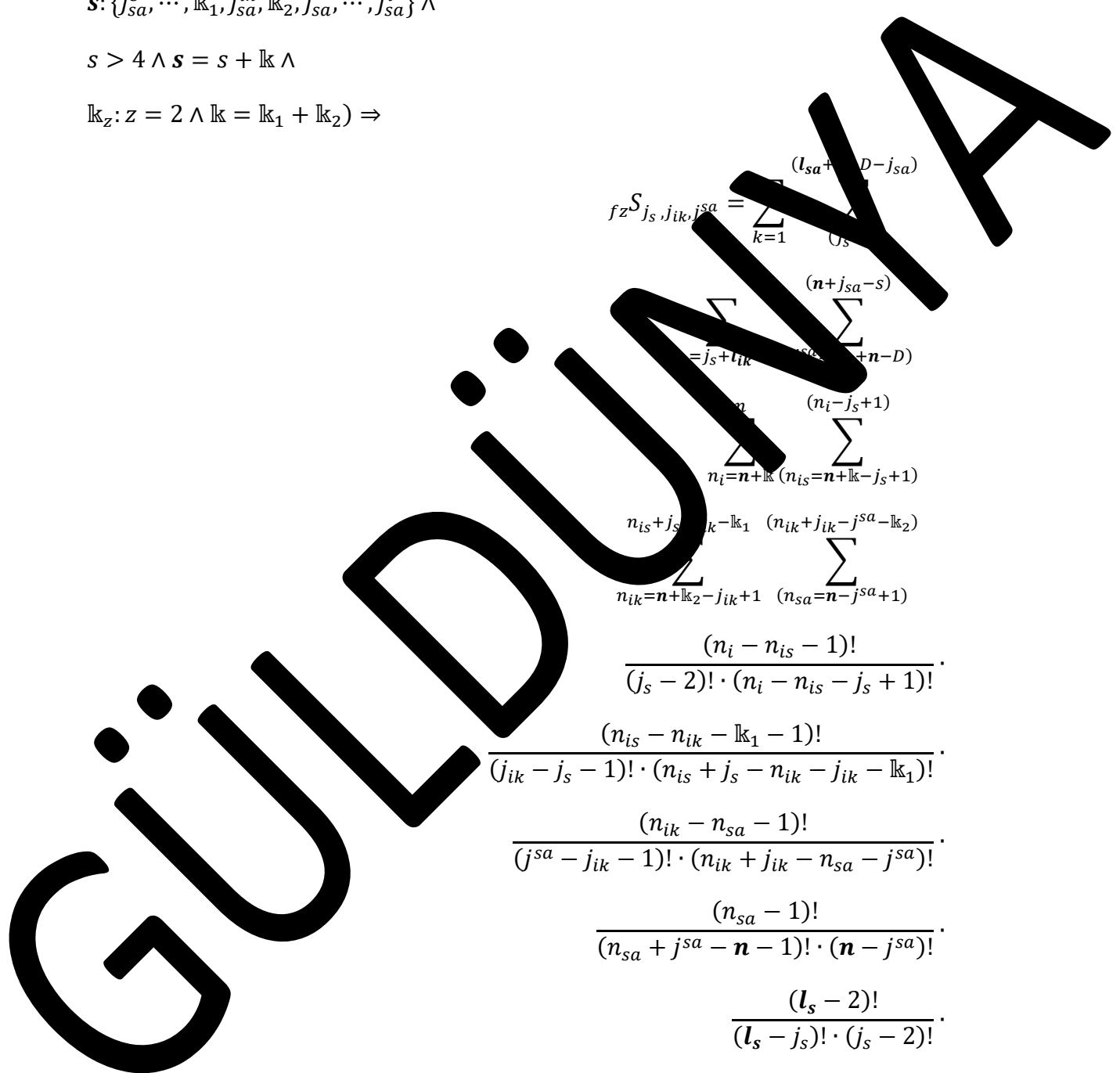
$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{\mathbb{k}} \frac{(l_{sa} + j_{sa} - D - j_{sa})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n + j_{sa} - s)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_i - j_s + 1)!}{(n_{ik} - n_{sa} - 1)!} \cdot \frac{(n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_i - n_{is} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(n_{sa} - 1)!} \cdot \frac{(n_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$



$$\begin{aligned}
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(n+j_{sa}-s)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}^{sa}}^{(n_{is}+j_s-j_{ik}^{sa}-j_{ik}^{sa}-k_2)} \sum_{(n_{sa}=n-j^{sa})}^{(n_{ik}+j_{ik}^{sa}-k_2)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(\quad)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$

$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$

$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$

$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa}^{ik} - n - 1)) \wedge$

$(D \geq n < n \wedge I = \mathbb{k} > 1 \wedge$

$j_{sa} \leq j_{sa}^i - j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^i, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_2 \cdot 2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(j^{sa}+1)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-n_{ik}-k_1-1)!} \\
 & \frac{(n_{is}-n_{sa}-k_2-1)!}{(j^{sa}-j_{sa}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa})}^{(n+j_{sa}-s)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(j^{sa}+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j^{sa} - j_{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{( )} \\
 & \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_s + j_{sa} - 1)} \sum_{(j^{sa} = l_i + n + j_{sa} - D - s)}^{(l_s + j_{sa} - 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^n \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_i - j_s + 1)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D + s - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} ( )$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)!(j_{ik} - j_s - 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n_{sa} - 1)!(n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(l_s)} \sum_{(j_s=2)}^{(l_s)} \\
 & \sum_{i_k=l_s+j_{sa}^{ik}-s}^{j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)!(j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_s + j_{sa}^{ik} - 1} \sum_{(j_{ik} - j_s - j_{sa}^{ik} + 1)}$$

$$\sum_{(n_i - j_s + 1)} \sum_{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{sa}^{ik} - k_1}^{( )} \sum_{(n_{sa}^{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - k_1 - k_2)! \cdot (n + k_1 + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_{sa}^s + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_i - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - l_i < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n < l_i \leq D + l_{sa} + s - n - j_{sa}) \vee$$

$$(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$



$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s = l_{sa} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1)) \wedge$$

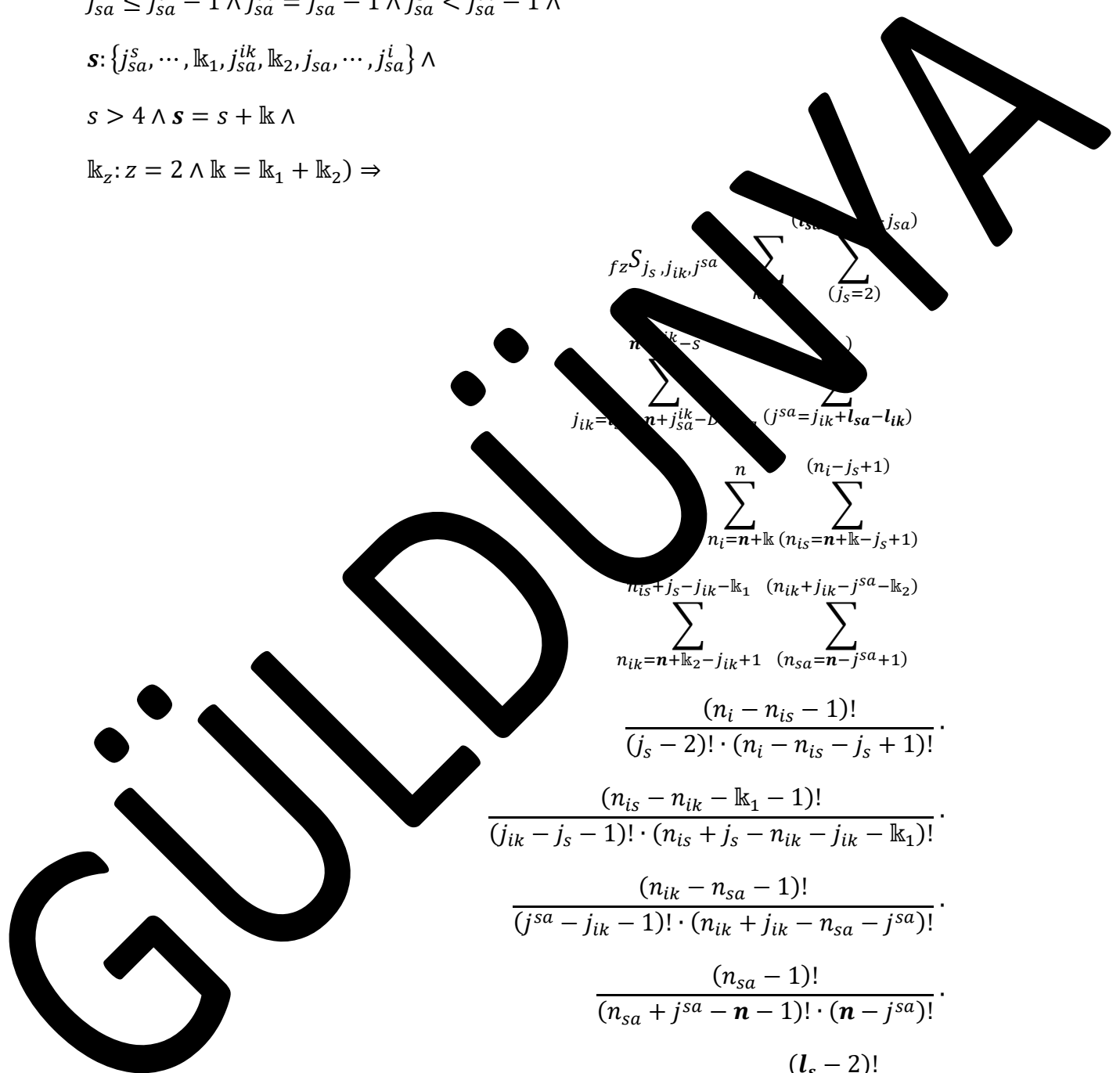
$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$



$$f_z^S \sum_{j_s=2}^{j_s} \sum_{j_{ik}=n+l_s-j_{sa}^{ik}}^{n+l_s-j_{sa}^{ik}-1} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{n+l_s-j_{sa}^{ik}-1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_i-j_s+1} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_s+n-D-j_{sa}+1)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n_{is}+1)}^{(n_{is}+1)}$$

$$\sum_{n_{ik}=j_{ik}-k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(j_{ik}+j_{ik}-j^{sa}-k_1)}^{( )}$$

$$\frac{(n_{is}-1)! \cdot (n_{is}-j_s+1)!}{(j_{ik}-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-k_1)!}$$

$$\frac{(n_{is}-1-k_1-1)!}{(j_{ik}-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-k_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=1}^{(l_s)} \sum_{(j_s=l_s+n-D-s+1)}^{(l_s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{( )} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 1)!}{(l_s - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - \dots)}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_{sa} + j_{sa} - s > \dots \wedge$

$l_i \leq D + s - n \wedge$

$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1$

$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - l_s - s)!}{(D + j^{sa} - n - l_s)! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa})} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{( )} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - \mathbf{n} - l_i - j_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$D \geq \mathbf{n} < \mathbf{n} \wedge l_s > 1 \wedge l_s \leq D - \mathbf{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z S_{j_s, j_{sa}^{ik}} = \sum_{k=1}^{( )} \sum_{j_s=j_{ik}+l_s-l_{ik}}^{(l_{sa})} \sum_{j_{sa}=j_{sa}+1}^{(n)} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{( )} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{( )}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa})} \sum_{(j^{sa}=l_i+l_{sa}-D-s)}^{(l_{sa})}$$

$$\sum_{i=n+kk}^n \sum_{(n_i=n+kk+1)}^{(n_i=n+kk+1)}$$

$$\sum_{n_i=n_{is}+j_s-k_1-k_2}^{( )} \sum_{(j^{sa}=kk_2)}^{( )}$$

$$\frac{(n_i + j_{ik} + j_{sa} - j_s - s - j_{sa} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa} - j_s - s - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} + j_{sa} + 1 \wedge i + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa} \leq j_s \leq n + j_{sa} - j_{sa} \wedge$$

$$l_{ik} - j_s + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - 1 \wedge$$

$$(D - n) \leq n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s \in \{s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{(j^{sa} = j_{sa} + \dots)}^{(\quad)}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik}}^{(n_{is} + j_s - j_{ik} - \dots + j_{ik} - \dots - k_2)}$$

$$\sum_{(n_{sa} = n - j^{sa})}^{(\quad)}$$

$$\frac{(n_i - n_{sa} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_{ik} + j_{sa} - j_{sa}^{ik})} \sum_{(j^{sa} = j_{sa} + 1)}^{(\quad)}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_2 : z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$$

$$fz_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{\binom{()}{j_s=j_{ik}+l_s-l_{ik}}} \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{\binom{()}{j^{sa}=j_{sa}+1}} \sum_{n_i=n+\mathbb{k}} \sum_{\binom{()}{n_{is}=n+\mathbb{k}-j_s+1}} \sum_{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1} \sum_{\binom{()}{n_{sa}=n-j^{sa}+1}}$$



$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - 1)! \cdot (n + j_s - j^{sa} - s)!} \cdot \\
 & \sum_{j_s=1}^{l_s - l_{ik}} \sum_{l_s=l_{ik}}^{j_s + l_s - l_{ik}} \sum_{j_{sa}=l_{ik} - l_{sa}}^{l_{ik} + j_{sa} - j_{sa}^{ik}} \sum_{j_{sa}=l_i + n + j_{sa} - D - s}^{j_{sa} = l_i + n + j_{sa} - D - s} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_{sa}}^{j_{sa}} \sum_{j_s=j_{ik}+l_s-l_{ik}} \sum_{l_{sa}=j_{sa}+j_{ik}-l_i} \sum_{j_{ik}=j_{sa}+1}^n \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_i-n_{is}-1)!} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-k_1)!} \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!}$$

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$$\sum_{k=1}^{\binom{D}{s}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{D}{s}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+l_{ik}-j_{sa})}^{\binom{D}{s}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{\binom{D}{s}}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{\binom{D}{s}} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa})}^{\binom{D}{s}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - l_{sa}^{ik} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{ik} + j_{sa}^s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - s)!}{(D - s - l_i - l_{k_1})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq l_{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j_{sa}^{ik} \wedge n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 \leq l_{sa} + j_{sa}^{ik} - j_{sa} \wedge l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$

$D + s - n < l_i \leq D - l_s + s - l_{k_1} - 1 \wedge$

$D \geq n \wedge l = l_{k_1} > 1 \wedge$

$j_{sa} \leq l_{sa} - 1 \wedge j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$

$> 4 \wedge s + l_{k_1} \wedge$

$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{\binom{D}{s}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{D}{s}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \binom{(\quad)}{j^{sa}=j_{ik}+l_{ik}-l_i}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)}$$

$$\frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!}$$

$$\frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-k_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_i+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1} \binom{(\quad)}{j_s=j_{ik}+l_s-l_{ik}}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \binom{(\quad)}{j^{sa}=j_{ik}+l_{sa}-l_{ik}}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\quad)}$$

$$\frac{(n_i+j_{ik}+j_{sa}^s-j_s-s-j_{sa}^{ik}-k_1-k_2)!}{(n_i-n-k_1-k_2)! \cdot (n+j_{ik}+j_{sa}^s-j_s-s-j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$f_z^{\mathcal{S}_{j_s, j_{ik}, j^{sa}}} = \sum_{k=1}^{(\ )} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\ )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik}} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{(\ )}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{(j_s - j_{sa})} \sum_{l_{ik}=1}^{(l_s - l_{ik})} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}^{ik}} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{j_{sa}^{ik}} \sum_{i=1}^{n+k} \sum_{n_{is}=n+k-j_s+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{k_1=1}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)} \frac{(n_i + j_{sa}^{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n \wedge l_s > 1 \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

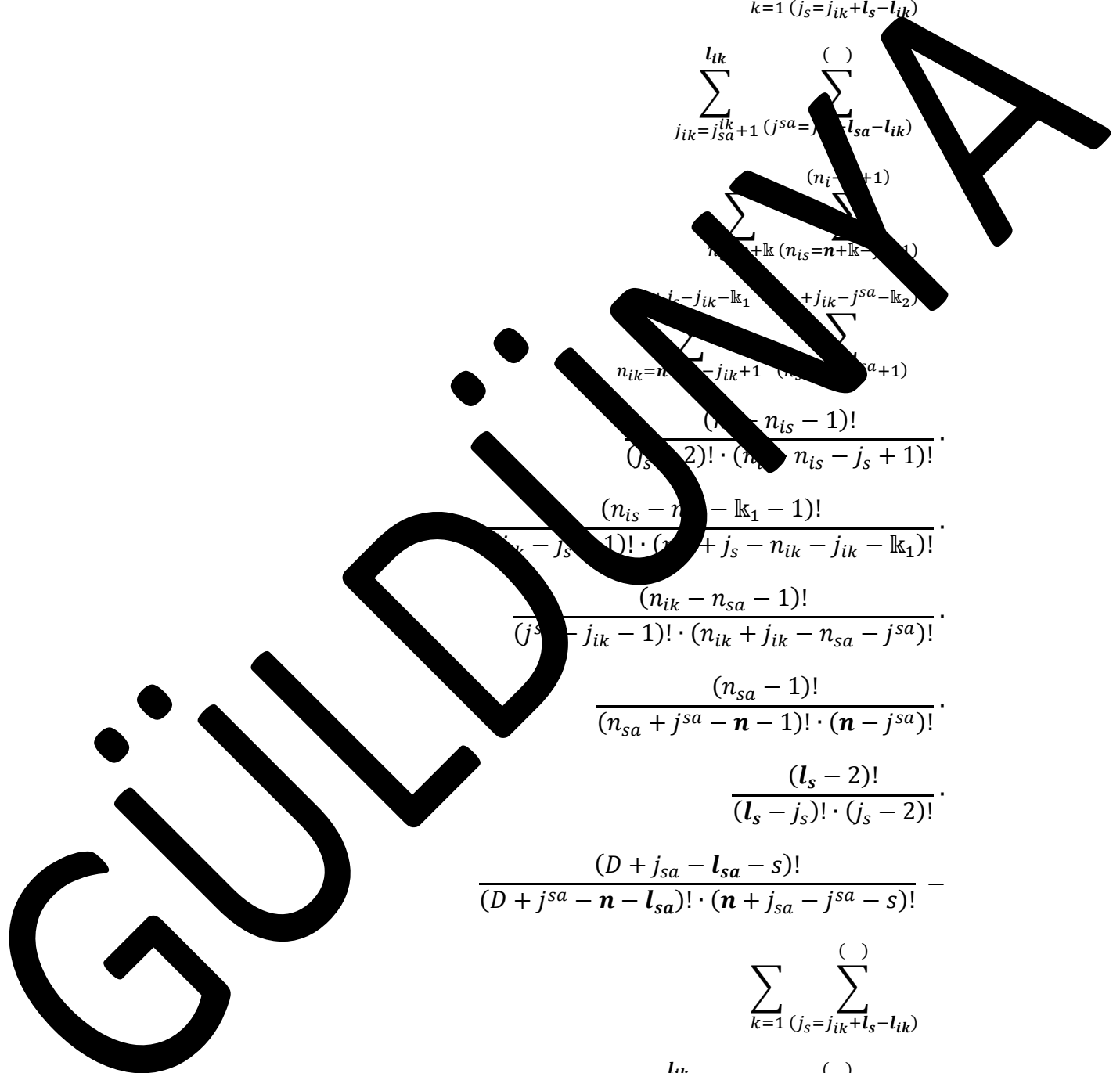
$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \sum_{j_{ik}=j_{sa}^{l_{ik}+1}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \frac{(n_i-j_s+1)!}{(n_i+\mathbb{k}-(n_{is}+n+\mathbb{k}-j_s+1))!} \cdot \frac{(n_i-j_{ik}-\mathbb{k}_1+j_{ik}-j^{sa}-\mathbb{k}_2)!}{(n_{ik}+n_{sa}-j_{ik}+1-(n_{is}+n+\mathbb{k}-j_s+1))!} \cdot \frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{is}-\mathbb{k}_1-1)!}{(n_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{l_{ik}-D-s}}^{l_{ik}} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$



$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - j_{ik} \wedge l_i + j_s - s > l_s \wedge$$

$$l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_2 : z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{sa}-j_{sa}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$



$$\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_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s - 2)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - 1)! \cdot (n + j_s - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{j_{sa}+1} \sum_{(j_s=2)}^{(j_s=2)} \sum_{(j_s=2)}^{(j_s=2)} \sum_{(j_s=2)}^{(j_s=2)} \sum_{(j_s=2)}^{(j_s=2)} \sum_{(j_s=2)}^{(j_s=2)} \sum_{(j_s=2)}^{(j_s=2)} \sum_{(j_s=2)}^{(j_s=2)} \sum_{(j_s=2)}^{(j_s=2)} \sum_{(j_s=2)}^{(j_s=2)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}} = \sum_{i=1}^{n-j_s+1} \sum_{(j_s=2)}^{(n_i-j_s+1)} \dots$$

$$j_{ik} = j_s + \dots - l_s \quad (j_{sa} = j_{ik} + l_{sa} - l_{ik})$$

$$\sum_{n_i=n+k}^n \sum_{(n_i=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

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$$\sum_{k=1}^{(l_{sa}-j_{sa}+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n)} \sum_{(j_{ik}=j_s+l_{ik}-l_s)}^{(n)} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_i)}^{(n)} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(n)} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n)} \frac{(n_i+j_{ik}+j_{sa}^{s_1}-j_{sa}^{ik}-l_{k_2})!}{(n_i-n_{ik}-l_{k_2})! \cdot (n_{ik}+j_{sa}^{s_1}-l_{k_2}-j_{sa}^{ik})!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(D-s)!}{(n_{is}+s-n-l_i-j_{sa}^{s_1})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$   
 $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{s_1} - 1 \leq j_{ik} \leq j_s + j_{sa}^{ik} - j_{sa} \wedge$   
 $j_{ik} + l_{k_2} - j_{sa}^{ik} \leq j_{sa}^{s_1} \leq n + j_{sa} - s \wedge$   
 $l_{k_2} - j_{sa}^{ik} + 1 \leq l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$   
 $l_i \leq D + s - n \wedge$   
 $(D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$   
 $j_{sa} \leq j_{sa}^{i_1} - 1 \wedge j_{sa}^{i_2} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$   
 $s: \{j_{sa}^{i_1}, \dots, j_{sa}^{i_2}, j_{sa}^{i_3}, \dots, j_{sa}^i\} \wedge$   
 $s > 4 \wedge s \leq s + l_k \wedge$   
 $l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(n)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n+l_{k_2}-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_s-2)!}{(l_s-j_s)! \cdot (j_s-2)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=1}^{(l_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge l_i + j_{sa} - s > l_{sa} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j^{sa}}} = \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{( )}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{(l_i - j_{sa}^{ik} + 1)} \sum_{(j_s = l_i + n - k - s + 1)}^{(j_s = l_i + n - k - s + 1)} \sum_{(i_k = j_s + l_{ik} - l_s)}^{(i_k = j_s + l_{ik} - l_s)} \sum_{(a = j_{ik} + l_{sa} - l_{ik})}^{(a = j_{ik} + l_{sa} - l_{ik})} \sum_{(j_s = j_s + 1)}^{(j_s = j_s + 1)} \sum_{(n + \mathbb{k} = n + \mathbb{k} - j_s + 1)}^{(n + \mathbb{k} = n + \mathbb{k} - j_s + 1)} \sum_{(n_{is} = n_{is} + j_s - j_{ik} - \mathbb{k}_1)}^{(n_{is} = n_{is} + j_s - j_{ik} - \mathbb{k}_1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \frac{(n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - 2)!}{(l_s - j_s)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} = l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=1)}^{(\cdot)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa})!}{(n_{sa} - j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(n_{sa} - j^{sa} - n - 1)! \cdot (n - j^{sa})!}{(n_{sa} - j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(D) (j^{sa} - l_{sa} - s)!}{(n_{sa} - j^{sa} - n - 1)! \cdot (n - s)!} +$$

$$\left( \sum_{k=1} \sum_{(j_s=1)}^{(\cdot)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+l_{ik}-l_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

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$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )} \sum_{j_{ik} \leq j_s} \sum_{(j_{sa})}^{( )} \sum_{n=n+\mathbb{k}}^n \sum_{(n_{ik}=n_{ik}-\mathbb{k}_1, n_{sa}=n_{sa}-\mathbb{k}_2)}^{( )} \sum_{(j_{sa}^{ik}-\mathbb{k}_1-2)}^{( )} \frac{(j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_s = 2 - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_s \leq n + j_{sa} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} < D + j_{sa}^{ik} - n \wedge l_s \leq D + j_{sa}^{ik} - n \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 2) \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot 2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$fz_{j_s, j_{ik}, j_{sa}}^S = \sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )}$$



$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=j_{sa})}^{(l_{sa})} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!}{(n_{sa} + j^{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{( )} \sum_{(j_s=1)}^{( )} \\
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{( )} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{( )} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{( )} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge l_i \leq D + s - n \wedge$$

$$(D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & f_z S_{j_s, j_{ik}, j_{sa}} \sum_{k=1}^{(\cdot)} \sum_{j_s=1}^{(\cdot)} \\ & \sum_{n_i=n+k}^n \sum_{n_{ik}=n_{sa}-j_{ik}+1}^{(n_i-j_{ik}-j_{sa}+1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \\ & \frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - n_i - n_{ik} - j_{ik} - k_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \\ & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \end{aligned}$$

$$\sum_{k=1}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{j_{sa}=j_{sa}}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - \dots)!}$$

$$D \geq n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$f_z S_{j_s, j_{ik}, j^{sa}} = \left( \sum_{k=1} \sum_{(j_s=1)}^{(\cdot)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) +$$

$$\left( \sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j_{sa}=j_{sa}^{sa}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{(n_{sa}=n_i+j_{ik}-j_{sa}-l_{k_2})}^{n_{ik}+j_{ik}-j_{sa}-l_{k_2}}$$

$$\frac{(n_i - n_{ik} - j_{sa} - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_i - j_{ik} - l_{k_1} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_i + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_{ik} - j_{sa}^{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\left( \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) -$$

$$\sum_{k=1}^{(\quad)} \sum_{(j_s=1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_{sa}^{sa}=j_{sa})}^{(\quad)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

GÜLDÜŞMÜŞA

$$D \geq n < n \wedge l_s = 1 \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$(D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2) \Rightarrow$$

$$\begin{aligned} & \sum_{k=1}^{(\cdot)} \sum_{j_s=1}^{(\cdot)} j_{ik} j_{sa}^{ik} \\ & \sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_{sa}=j_{sa}}^{(\cdot)} \\ & \sum_{i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{j_{ik}-\mathbb{k}_1+1} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\ & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\ & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\ & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\ & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n - s)!} \right) + \\ & \left( \sum_{k=1}^{(\cdot)} \sum_{j_s=1}^{(\cdot)} \right) \\ & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{(\cdot)} \end{aligned}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{\substack{(n_i-j_{ik}-l_{k_1}+1) \\ (n_{ik}=n+l_{k_2}-j_{ik}+1)}} \sum_{\substack{n_{ik}+j_{ik}-j^{sa}-l_{k_2} \\ n_{sa}=n-j^{sa}+1}} \\
 & \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - j_{ik})!}{(l_{ik} - j_{ik})! \cdot (j_{ik} - l_{ik})!} \cdot \\
 & \left( \frac{(D - l_i - s)}{(D - j^{sa} - n - l_{sa}) \cdot (n - j^{sa} - s)!} \right) \cdot \\
 & \sum_{k=1}^{(\cdot)} \sum_{(j_s=1)}^{(\cdot)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{(j^{sa}=j_{sa})}^{(\cdot)} \\
 & \sum_{n+l_k}^n \sum_{\substack{(n_{ik}=n_i-j_{ik}-l_{k_1}+1) \\ (n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

GÜLDÜNYA

## DİZİN

## B

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.1.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.2.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.3.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.1.1/153-154

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.1.1/162-163

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.1.1/210

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.2.1/153-154

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.2.1/162-163

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.2.1/210

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.1.1/153-154

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.1.1/162-163

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.1.1/210

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.4.1.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.4.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.4.2.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.4.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.4.3.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.4.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu

simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.1.1/156-157

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.1.1/165

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.1.1/215

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.2.1/156-157

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.2.1/165

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.2.1/215

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.3.1/156-157

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.3.1/165

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.3.1/215

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.1.4.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.6.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.5.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.6.2.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.6.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu

bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.1.6.3.1/3-4

ilk düzgün simetrik olasılık,  
2.3.2.2.1.6.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.1.1.1.1/77

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.1.1/61

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.1.1/106

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.1.1.2.1/77

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.2.1/61

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.2.1/106

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.1.1.3.1/77

ilk düzgün simetrik olasılık,  
2.3.2.2.1.1.3.1/61

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.3.1/106

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.1.1.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.1.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre



ilk simetrik olasılık,  
2.3.2.1.2.1.2.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.1.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımlı  
simetrisinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.1.3.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.1.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
simetrisinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.2.1.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.2.2.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.2.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımsız simetrisinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.2.2.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.2.2.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.2.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımlı simetrisinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.2.3.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.2.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.2.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
simetrisinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.4.1.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.4.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
bağımsız simetrisinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.4.2.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.4.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
bağımlı simetrisinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.4.3.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.4.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
simetrisinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.6.1.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.6.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımsız simetrisinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.6.2.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.6.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımlı simetrisinin ilk ve son durumunun  
bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.6.3.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.2.6.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.7.1.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.2.7.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.7.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.2.7.2.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.2.7.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.2.7.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.2.7.3.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.7.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.2.7.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.1.1.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.1.1.1/4-5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.1.2.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.1.2.1/4-5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.1.3.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.1.3.1/4-5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.2.1.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.2.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.2.2.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.2.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.3.2.3.1/4

ilk düzgün simetrik olasılık,  
2.3.2.2.3.2.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.3.2.3.1/4-5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin herhangi iki durumuna bağlı

- ilk simetrik olasılık, 2.3.2.1.4.1.1.1/4
- ilk düzgün simetrik olasılık, 2.3.2.2.4.1.1.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.4.1.1.1/5
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin herhangi iki durumuna bağlı
- ilk simetrik olasılık, 2.3.2.1.4.1.2.1/4
- ilk düzgün simetrik olasılık, 2.3.2.2.4.1.2.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.4.1.2.1/5
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin herhangi iki durumuna bağlı
- ilk simetrik olasılık, 2.3.2.1.4.1.3.1/4
- ilk düzgün simetrik olasılık, 2.3.2.2.4.1.3.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.4.1.3.1/5
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin herhangi iki durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.4.1.1.1/701-702
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin herhangi iki durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.4.1.2.1/701-702
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin herhangi iki durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.4.1.3.1/701-702
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.5.1.1.1/5
- ilk düzgün simetrik olasılık, 2.3.2.2.5.1.1.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.5.1.1.1/6
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.5.1.2.1/5
- ilk düzgün simetrik olasılık, 2.3.2.2.5.1.2.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.5.1.2.1/6
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.5.1.3.1/5
- ilk düzgün simetrik olasılık, 2.3.2.2.5.1.3.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.5.1.3.1/6
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.5.2.1.1/6-7
- ilk düzgün simetrik olasılık, 2.3.2.2.5.2.1.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.5.2.1.1/8
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.5.2.2.1/6-7
- ilk düzgün simetrik olasılık, 2.3.2.2.5.2.2.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.5.2.2.1/8
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.5.2.3.1/5
- ilk düzgün simetrik olasılık, 2.3.2.2.5.2.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.5.2.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

ilk simetrik olasılık, 2.3.2.1.8.1.1.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.8.1.1.1/5

dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

ilk simetrik olasılık, 2.3.2.1.8.1.2.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.8.1.2.1/5

dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

ilk simetrik olasılık, 2.3.2.1.8.1.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.8.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

ilk simetrik olasılık, 2.3.2.1.6.1.1/6-7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.8.2.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

ilk simetrik olasılık, 2.3.2.1.8.2.2.1/6-7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.8.2.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

ilk simetrik olasılık, 2.3.2.1.8.2.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.8.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.6.1.1.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.6.1.1.1/4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.1.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.6.1.2.1/4

ilk düzgün simetrik olasılık, 2.3.2.2.6.1.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.1.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.6.1.3.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.6.1.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.6.2.1.1/6

ilk düzgün simetrik olasılık, 2.3.2.2.6.2.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.2.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.6.2.2.1/6

ilk düzgün simetrik olasılık,  
2.3.2.2.6.2.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.2.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.2.3.1/4-5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.2.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.4.1.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.4.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.4.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
bağımsız simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.4.2.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.4.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.4.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bir bağımsız durumlu  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.4.3.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.4.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.4.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.6.1.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.6.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.6.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımsız simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.6.2.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.6.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.6.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.6.3.1/5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.6.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.6.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımsız durumlu  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.7.1.1/6

ilk düzgün simetrik olasılık,  
2.3.2.2.6.7.1.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.7.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımsız durumlu  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.7.2.1/6

ilk düzgün simetrik olasılık,  
2.3.2.2.6.7.2.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.7.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımsız durumlu  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre

ilk simetrik olasılık,  
2.3.2.1.6.7.3.1/4-5

ilk düzgün simetrik olasılık,  
2.3.2.2.6.7.3.1/3-4

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.6.7.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu simetrisinin ilk  
herhangi bir ve son durumunun  
bulunabileceği olaylara göre herhangi bir  
ve son duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.9.1.1.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.1.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımsız  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.9.1.2.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.1.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı durumlu bağımlı  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.9.1.3.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.9.2.1.1/6

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.2.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımsız simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.9.2.2.1/6

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.2.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımsız-bağımlı durumlu  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.9.2.3.1/4-5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.9.4.1.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.4.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımsız simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.9.4.2.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.4.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımlı simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.9.4.3.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.4.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

ilk simetrik olasılık,  
2.3.2.1.9.6.1.1/5

ilk düzgün olmayan simetrik  
olasılık, 2.3.2.3.9.6.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı  
dizilimsiz bağımlı-bağımsız durumlu  
bağımsız simetrisinin ilk herhangi bir ve son  
durumunun bulunabileceği olaylara göre  
herhangi bir ve son duruma bağlı

ilk simetrik olasılık, 2.3.2.1.9.6.2.1/5  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.6.2.1/7  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı ilk simetrik olasılık, 2.3.2.1.9.6.3.1/5  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.6.3.1/7  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı ilk simetrik olasılık, 2.3.2.1.9.7.1.1/6  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.7.1.1/7  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı ilk simetrik olasılık, 2.3.2.1.9.7.2.1/6  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.7.2.1/7  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı ilk simetrik olasılık, 2.3.2.1.9.7.3.1/4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.7.3.1/5  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı ilk simetrik olasılık, 2.3.2.1.7.1.1.1/5  
 ilk düzgün simetrik olasılık, 2.3.2.2.7.1.1.1/3-4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.1.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılık, 2.3.2.1.7.1.2.1/5  
 ilk düzgün simetrik olasılık, 2.3.2.2.7.1.2.1/3-4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.1.2.1/7  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılık, 2.3.2.1.7.1.3.1/5  
 ilk düzgün simetrik olasılık, 2.3.2.2.7.1.3.1/3-4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.1.3.1/7  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılık, 2.3.2.1.7.2.1.1/7  
 ilk düzgün simetrik olasılık, 2.3.2.2.7.2.1.1/3-4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.2.1.1/10-11  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılık, 2.3.2.1.7.2.2.1/7  
 ilk düzgün simetrik olasılık, 2.3.2.2.7.2.2.1/3-4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.2.2.1/10-11  
 Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılık, 2.3.2.1.7.2.3.1/5  
 ilk düzgün simetrik olasılık, 2.3.2.2.7.2.3.1/3-4  
 ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.2.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.4.1.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.4.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.4.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.4.2.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.4.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.4.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.4.3.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.4.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.4.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.6.1.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.6.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.6.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.6.2.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.6.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.6.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.6.3.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.6.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.6.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.7.1.1/7

ilk düzgün simetrik olasılık, 2.3.2.2.7.7.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.7.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.7.2.1/7

ilk düzgün simetrik olasılık, 2.3.2.2.7.7.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.7.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.7.3.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.7.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.7.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.1.1.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.1.1.1/5-6



Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.1.2.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.1.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.1.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.1.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.2.1.1/7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.2.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.2.2.1/7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.2.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.2.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.2.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.4.1.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.4.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.4.2.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.4.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.4.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.4.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.6.1.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.6.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.6.2.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.6.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.6.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.6.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.7.1.1/7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.7.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.7.2.1/7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.7.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.10.7.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.7.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.1.1.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.1.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.1.2.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.1.2.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.1.3.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.1.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.2.1.1/8-9

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.2.1.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.2.2.1/9

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.2.2.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.2.3.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.2.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.4.1.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.4.1.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.4.2.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.4.2.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.11.4.3.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.4.3.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.11.6.1.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.6.1.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.11.6.2.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.6.2.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.11.6.3.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.6.3.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.11.7.1.1/8-9

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.7.1.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.11.7.2.1/8-9

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.7.2.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık,  
2.3.2.1.11.7.3.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.7.3.1/6

VDOİHİ'de Olasılık ve İhtimal konularının tanım ve eşitlikleri verilmektedir. Ayrıca VDOİHİ'de olasılık ve ihtimalin uygulama alanlarına da yer verilmektedir. VDOİHİ konu anlatım ciltleri ve soru, problem ve ispat çözümlerinden oluşmaktadır. Bu cilt bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz olasılık dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu olan ve bağımlı olasılıklı dağılımın ilk bağımlı durumuyla başlayan dağılımlarda, simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılığın tanım ve eşitliklerinden oluşmaktadır.

VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılığın kitabında, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu olan ve bağımlı olasılıklı dağılımın ilk bağımlı durumuyla başlayan dağılımlarda, simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılığın, tanım ve eşitlikleri verilmektedir.

VDOİHİ'nin diğer ciltlerinde olduğu gibi bu ciltte de verilen eşitlikler, olasılık tablolarından elde edilen verilerle üretilmiştir. Diğer eşitlikler ise ana eşitliklerden teorik yöntemle üretilmiştir. Eşitlik ve tanımların üretilmesinde dış kaynak kullanılmamıştır.