

VDOİHİ

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

Cilt 2.3.3.3.8.1.1.24

İsmail YILMAZ

Matematik / İstatistik / Olasılık

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VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı tek kalan düzgün olmayan simetrik olasılık Cilt 2.3.3.3.8.1.1.24

İsmail YILMAZ

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1. Bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı tek kalan düzgün olmayan simetrik olasılık

Dili: Türkçe + Matematik Mantık



K. Atatürk

Türkiye Cumhuriyeti Devleti
Kuruluşunun
100. Yılı Anısına

DÜZELTME

Bu cilt için

$$fz^S \Rightarrow j_s, j_{ik}, j^{sa}$$

simgesi yerine

$$fz^{DOST} \Rightarrow j_s, j_{ik}, j^{sa}$$

simgesi olmalı.

Yazar Hakkında

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

VDOİHİ

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

Sanırım bilgi ve teknolojideki kaderimiz veriyle ilişkilendirilmiş.

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GÜLDÜNYA

Simge ve Kısaltmalar

n : olay sayısı

n : bağımlı olay sayısı

m : bağımsız olay sayısı

l : bağımsız durum sayısı

L : simetrimin bağımsız durum sayısı

l : simetrimin bağımlı durumlarından önce bulunan bağımsız durum sayısı

L : simetrimin bağımlı durumlarından sonra bulunan bağımsız durum sayısı

k : simetrimin bağımlı durumları arasındaki bağımsız durumların sayısı

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

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

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

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

l_s : simetrimin ilk bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz

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

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

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

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

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

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

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

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

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

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

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

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

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

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

D : bağımlı durum sayısı

D_i : olayın durum sayısı

s : simetrinin bağımlı durum sayısı

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

m : olasılık

M : olasılık dağılım sayısı

U : uyum eşitliği

u : uyum derecesi

s_i : olasılık dağılımı

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

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

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

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

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

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

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

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

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

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herhangi iki ve son durumuna bağlı tek kalan simetrik olasılık

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

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

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

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

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

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

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

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

bağımlı simetrisinin herhangi iki durumuna bağlı tek kalan düzgün simetrik olasılık

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

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

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bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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

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durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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$f_z S_{j_i}^{DOST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$f_z S_{j_i, 0}^{DOST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

$f_z S_{j_i, D}^{DOST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

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$f_z S_{j^{sa}}^{DOST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu

simetrisinin durumuna bağlı tek kalan düzgün olmayan simetrik olasılık

$f_Z S_{j_s^{sa},0}^{DOST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin durumuna bağlı tek kalan düzgün olmayan simetrik olasılık

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

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E2

BAĞIMLI ve BİR BAĞIMSIZ OLASILIKLI FARKLI DİZİLİMSİZ DAĞILIMLAR

Bağımlı ve Bir Bağımsız Olasılıklı Farklı Dizilimsiz Dağılımlar

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

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

Farklı dizilimli dağılımlar, dağılımın ilk durumuyla başlayan (bunun yerine farklı dizilimli dağılımlarda simetriden ilk durumuyla başlayan dağılımlar), dağılımın ilk durumu hariçinde dağılımın herhangi bir durumuyla başlayan dağılımlar (bunun yerine farklı dizilimli dağılımlarda simetride bulunmayan bir durumuyla başlayan dağılımlar) ve dağılımın ilk durumu hariçinde ilk dağılımının başladığı farklı ikinci durumla başlayıp simetriden 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 (bağımlı olay sayısı) dağılımla bağımlı ve bir bağımsız olasılıklı dağılımlar elde edilir. Bağımlı dağılım farklı dizilimsiz dağılımlarda bulunduğu durumda, 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 tablolarla göre verilmektedir. Farklı dizilimsiz dağılımlarda durumların küçükten-

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

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

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

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

SİMETRİDEN SEÇİLEN ÜÇ DURUMDAN SON İKİ DURUMA BAĞLI TEK KALAN DÜZGÜN OLMAYAN SİMETRİK OLASILIK

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

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

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

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

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

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

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

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

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

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

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

$$f_z^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

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

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

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

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

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

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

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

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

$$D + l_s + j_{sa} - n - l_{sa} - 1 \leq l \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

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

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

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

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

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

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

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

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

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

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)} \right)$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- $D \geq n < n \wedge l_s > D - n + 1 \wedge$
- $D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + \dots \leq D - n + 1 \wedge$
- $2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + \dots - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$
- $l_{k_1} - j_{sa}^{ik} + 1 \leq l_{k_1} \wedge l_{sa} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$
- $D \geq n < n \wedge l = l_{k_1} = 0 \wedge$
- $j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$
- $s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, j_{sa}^i, j_{sa}^i\} \wedge$
- $s > 3 \wedge j_{sa}^s = s + l_{k_1} \wedge$
- $l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

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

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

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

$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

$$(n_i - \dots + 1)$$

$$n + \mathbb{k} \quad (n_{is} = n + \mathbb{k} + 1)$$

$$(\)$$

$$= n_{is} + j_s - \dots - \mathbb{k}_1 \quad (n_{sa} - \dots - j_{sa} - \mathbb{k}_2)$$

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

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

$$(D - l_i)!$$

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

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

$$2 \leq l \leq D + j_{sa} - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\frac{(n_i - j_s - k_1 - k_2 - l - 1)!}{(n_i - j_s - k_1 - k_2 - 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l)!}{(D + j_s + s - l_i - k_1 - k_2)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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

$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$

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

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

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

$l_{ik} - j_{sa}^{ik} + k_1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l_s = 0 \wedge$

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

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

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

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

$$\begin{aligned}
 f_{Z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{()} \\
 &\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-l_1} \sum_{(n_{sa}=n-j_{sa}^{ik})}^{(n_i-j_s+1)} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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

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

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

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

$$2 \leq l \leq D - l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

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

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

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

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

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

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

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

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

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

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}}^S = \left(\sum_{l=1}^{(l_s - n - D - j_{sa})} \sum_{(j_s = n - D)}^{(n - D - j_{sa})} \right)$$

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

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

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

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

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

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

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

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

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

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

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

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

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

$$2 \leq l \leq D - l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

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

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

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

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

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

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

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

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

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

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa} = \sum_{k=l}^{\mathbb{k}-j_{sa}^{ik}+1} \sum_{(j_s=n-D)}^{(l_s+j_{sa})} \sum_{j_{ik}=j_{sa}^{ik}}^{j_{sa}} \sum_{(j_{sa}=l_{ik}+j_{sa}-D-j_{sa}^{ik})}^{n} \sum_{n_i=0}^{n} \sum_{n_{is}=\mathbb{k}}^{\mathbb{k}} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{n} \sum_{n_{ik}=n_{is}-j_{ik}+1}^{n} \sum_{(n_{sa}=n-j_{sa}+1)}^{n} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-l_1}^{(n_{is}+j_s-j_{ik}-l_1)} \sum_{(n_{sa}=n-j^{sa}+)}^{(n_{sa}=n-j^{sa}+)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}}^{(n_{ik}=n+k_2-j_{ik})} \sum_{(n_{sa}=n-j^{sa}+)}^{(n_{sa}=n-j^{sa}+)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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

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

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

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

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

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

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

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

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

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

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!} \cdot \frac{(n_{ik} - k_1 - k_2)!}{(n_{ik} - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - 1)!}{(D + j_s + s - 1 - l_i - k_1 - k_2)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l_s < D - n + 1$$

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

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

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

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

$$D \geq n < n \wedge l_s = 0 \wedge$$

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

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

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

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

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

GÜLDÜZYA

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

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

$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$n_{sa} > D - n + 1 \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

$2 \leq l \leq D + j_{sa} - l_{sa} \wedge$

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

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

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

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

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

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

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

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

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

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

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

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

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

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

$$2 \leq l \leq D \wedge l_s + j_{sa} - n - l_{sa} \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D + n + 1 \wedge$$

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

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

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

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

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

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

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

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

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

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

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

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$D + l_s + j_{sa} - n - l_{sa} - 1 \leq l \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

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

$$\begin{aligned}
fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \\
&\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)} \\
&\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
&\sum_{n_{ik}=n+k_2-j_{ik_1}}^{n_{is}+j_s-j_{ik_1}-j_{ik_2}+j_{ik_1}-j_{ik_2}} \sum_{(n_{sa}=n-j^{sa})}^{(n_i-j_s+1)} \\
&\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
&\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
&\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
&\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
&\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
&\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
&\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
&\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
&\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)} \\
&\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
\end{aligned}$$

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

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

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

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

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

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

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

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

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

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

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

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

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

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

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

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

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

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

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

$$2 \leq l \leq D + j_{sa}^{ik} - l_{ik} \wedge$$

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

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

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

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

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

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

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

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

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

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

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

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

$$\sum_{n_{ik}=n+k_2-j_{ik_1}}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+j_{ik}-k_2)}$$

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

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

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

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

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

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

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

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

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

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

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$$\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 - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_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=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)} \\
 & \sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{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}_{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 - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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

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

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$2 \leq l \leq D - l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

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

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

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

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

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

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

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

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

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

$$fzS \Rightarrow j_s, j_{ik}, j_{sa} = \sum_{(j_s=l_s, n-D)}^{(l_s=n-D-j_{sa}^{ik})} \sum_{(j_{ik}=l_{ik}, n-D)}^{(l_{ik}=n-D-j_{sa}^{ik})} \sum_{(j_{sa}=l_{sa}, n-D)}^{(l_{sa}=n-D-j_{sa}^{ik})} \dots$$

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

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

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

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

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

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

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

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

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

$$f_z^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s-l+1)} \sum_{n+l_k}^{(n+l_k-j_s+1)} \sum_{n_{is}+j_{sa}^{ik}-l_{k_1}}^{(n_{ik}+j_{sa}^{ik}-l_{k_2})} \sum_{n_{ik}+l_{k_2}-j_{ik}}^{(n_{sa}=n-j^{sa}+1)}$$

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

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

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

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

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

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

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

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

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

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

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

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa} - l_{k_1})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa} - l_{k_2})!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - \dots)!}{(D + j^{sa} + s - n - \dots - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\begin{aligned}
 f_{z^S \Rightarrow j_s, j_{ik}, j^{sa}} &= \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 &\quad \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=j_{sa})}^{(l_s+j_{sa}-l)} \\
 &\quad \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\quad \sum_{n_{is}+j_s-j_{ik}-l_{k_1}}^{(n_{is}+j_s-j_{ik}-l_{k_1})} \sum_{(n_{sa}=n-j^{sa}+l_2)}^{(n_{sa}=n-j^{sa}+l_2)} \\
 &\quad \sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{(n_{ik}=n+l_{k_2}-j_{ik})} \sum_{(n_{sa}=n-j^{sa}+l_2)}^{(n_{sa}=n-j^{sa}+l_2)} \\
 &\quad \frac{(n_{is}-1)!}{(j_s-2)! \cdot (n_i-j_s+1)!} \cdot \\
 &\quad \frac{(n_{is}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 &\quad \frac{(n_{ik}-1)!}{(j^{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 &\quad \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\
 &\quad \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 &\quad \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 &\quad \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 &\quad \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\quad \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)}
 \end{aligned}$$

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

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

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

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

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

$$D \geq n < n \wedge l \neq 1 \wedge l_{sa} \leq n + j_{sa} - n \wedge$$

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

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

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

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

$$D \geq n < n \wedge l = l_{k_1} \geq 0 \wedge$$

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

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

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

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

$$fz^S \Rightarrow j_s \cdot j_{ik} \cdot j^{sa} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(j_s - j_{ik} - 1)! \cdot (j_s - 2)!}$$

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

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

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

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

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

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

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

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left((D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge \right.$$

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

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

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

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

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

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

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

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

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

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

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

$$s > 3 \wedge s = j_{sa}^i + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = j_{sa}^i + \mathbb{k}_2$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \right)$$

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

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

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

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

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

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

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

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

$$\sum_{i=2}^{(j_{ik} - j_{sa}^{ik} + 1)}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$(n_i + 1)$$

$$+ \mathbb{k} (n_{is} = n + \mathbb{k} - 1)$$

$$(\)$$

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

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

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

$$(D - l_i)!$$

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

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

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

$$j_{ik} - j_{sa} + j_{sa}^{ik} - j_{sa}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$D \geq n < n \wedge l_{ik} - \mathbb{k}_1 \geq 0$

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

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

$s > 0 \wedge s = s + 1$

$\mathbb{k}_z: z = 2, \dots, l_{ik} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \right)$$

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

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

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

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

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

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

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j_s - 1)! \cdot (j_s - 2)!}$$

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

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

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

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

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

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

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

GÜLDÜSÜNYA

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

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

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

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

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

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

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

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

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

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

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

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

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

$$f_{z \Rightarrow j_{sa}^{ik}, j_{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

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

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

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

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l_s \leq l - 1 \wedge$$

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

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

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

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

$$D + l_s - n < l_{sa} - D + l_s + j_{sa} - n - 1 \wedge$$

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

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

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

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

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

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

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

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

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

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

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

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

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

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

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

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

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

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

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

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

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$l_s \geq n - l_i \wedge I = \mathbb{k} \geq 0 \wedge$$

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

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

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

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

$$fzS_{\Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

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

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

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

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

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

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

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

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

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

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

GÜLDENWA

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

GÜLDÜŞMÜŞ

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

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

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

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \frac{(l_s - l - 1)!}{(n_i - j_s + 1)!} \cdot \frac{(n_i - l_{k_1} - l_{k_2} + k - j_s + 1)!}{(n_{sa} - l_{k_1} + j_{ik} - j_{sa} - l_{k_2})!}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$D + l_s + j_s - n - l_{sa} + 1 \leq l \leq i - 1 \wedge$$

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

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

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

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

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

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

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

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

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

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

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa}^{l-s-l+1}$$

$$l_{sa} + j_{sa}^{ik} - l - j_{sa} + 1$$

$$= l_{sa} + n + \dots - D - j_{sa} \dots - j_{sa}^{ik}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik})!} \cdot \frac{(j_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l)!}{(D + j_s + s - l_i - l)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

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

$$j_{ik} = j^{sa} + j_{sa}^{ik} \wedge$$

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

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

$$D + j_s - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

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

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

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

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

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

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

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

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

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

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq i - 1 \wedge$$

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

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

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

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

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

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

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

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

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

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

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

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

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

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

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

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

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

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

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

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

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

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

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

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

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

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

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

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

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

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

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

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

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

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

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

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

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \right)$$

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

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

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n_{sa} - l_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{-l+1} \sum_{(j_s=2)}^{-l+1} \sum_{\substack{l_{ik}=k+1 \\ j_{sa}^{ik}=l+1}}^{\binom{(\cdot)}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \right. \\
 & \quad \left(\sum_{k=l}^{(l_{sa} + n - D - j_s)} \sum_{(j_s=2)}^{(n_i - j_s + 1)} \right) \\
 & \quad \sum_{j_{ik}=l_{ik} - D}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j_s=2)}^{(n_i - j_s + 1)} \sum_{(n_{ik} + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \quad \sum_{(n_{ik} + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \quad \sum_{n_{ik} = k_2 - j_{ik} + 1}^{n_{is} + j_s - k_1} \sum_{(n_{ik} + j_{ik} - a - k_2)}^{(n_{ik} + j_{ik} - a - k_2)} \\
 & \quad \sum_{(n_{ik} + j_{ik} - a - k_2)}^{(n_{ik} + j_{ik} - a - k_2)} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{sa} = n - j^{sa} + 1)} \\
 & \quad \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \quad \frac{(n_{is} - n_{ik} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \quad \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \quad \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \quad \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \quad \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \quad \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \right)
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{sa}=n-j_{sa}^{ik})}^{n_{ik}+j_{ik}-1-j_{sa}^{ik}+1} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} + l_{k_2} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{ik} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - l_{ik} - j_{sa} + 1)! \cdot (j_{ik} - j_{sa} - j_{sa} + 1)!} \cdot \\
& \frac{(n_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
& \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) \cdot \\
& \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
& \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{l_s + j_{sa}^{ik} - l} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\cdot)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik})}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} \cdot \\
& \sum_{l_s=2}^{(l_s-l+1)} \sum_{j_s=2}^{(l_s-l+1)} \sum_{j_{ik}=j_s^{sa}-j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{(n-j_s+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_k-1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_k-2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \ (j^{sa} = l_{ik} + n - D - j_{sa}^{ik})}^{(l_s + j_{sa} - l)} \sum_{(n_i = n + k - 1)}^{(n_i + 1)} \sum_{(n + k)}^{(n_i + 1)} \sum_{(n_s = n + j_s - k_1 \ (n_{sa} = n + j_s - k_2))}^{(\cdot)} \frac{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - k_1 - k_2)!}{(n_i - n + k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n + 1 \wedge$$

$$l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} \leq l \wedge$$

$$j_{ik} = j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} = j_{sa} \wedge n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_{ik}+n+s-D-j_{sa}^{ik})} \\
 &\sum_{n_i=n+1}^n \sum_{(n_i+j_s+1)}^{(n_i+j_s+1)} \\
 &\sum_{(n_{is}+j_s-j_{ik})}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{is}-j^{sa}+1)}^{(n_{is}-j^{sa}+1)} \\
 &\frac{(n_i - n_{is})}{(j_s - 2) \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1) \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 &\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_j)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - 1)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{ik} - n < l_{ik} \wedge D + l_s + j_{sa}^{ik} - j_{sa} - 1$$

$$D > n < n \wedge \mathbb{k} \geq \mathbb{k}_1 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^b - j_{sa} - 1 \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^{ik}\} \wedge$$

$$s > 3 \wedge s = j_{sa} - \mathbb{k} \wedge$$

$$\mathbb{k}_2 = j_{sa} - \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_s=2)}^{(\quad)} (j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})$$

$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{sa} + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{sa} + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa} - 1)! \cdot (n + j^{sa} - j^{sa} - s)!}$$

$$\sum_{i=1}^{l_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s}$$

$$\sum_{n_{ik}+n-D}^{l_s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} \wedge j_{sa}^s = j_{sa}^{ik} \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 2 \wedge s = s + \mathbb{k}$$

$$\mathbb{k} = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fzS \Rightarrow j_s, j_{ik}, j^{sa} = \left(\sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)} \right)$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}-l+1} \sum_{(j_s)}^{()} (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{l=1}^{l_s - l + 1} \sum_{j_s = l_{sa} + n - D - j_{sa} + 1}^{l_s - l + 1} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{l_{ik} - l + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{()} \\
 & \sum_{n_i = n + k_1}^n \sum_{(n_{is} = n + k_1 - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \left(\sum_{i=l}^{(l_s - n - D - j_{sa})} \sum_{j=2}^{(j_s - 2)} \right) \cdot \\
& \sum_{i=n-D}^{j^{sa} + j_{sa}^{ik} - 1} \sum_{i=l_{sa} + n - D}^{(l_{ik} + j_{sa} - 1)} \cdot \\
& \sum_{i=0}^n \sum_{i_1=0}^{(n - i_1 - 1)} \cdot \\
& \sum_{n_{i_1} + k_1}^{n_i - i_1 + k_1} \sum_{(n_{is} = n + k_1 - j_s + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \cdot \\
& \sum_{n_{ik} = n - j_{ik} + 1}^{(n_{sa} = n - j^{sa} + 1)} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{ik}+j_s-l-j_{sa}+2)}^{(l_{sa}-l+1)} \\
 & \sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}^{(n_{ik}+1)} \\
 & \sum_{n_{ik}+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(j^{sa}+1)}^{n_{ik}+j_{ik}-j^{sa}-k_1} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-l_{k_1}}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \sum_{(n_{sa}=j_{sa}^{ik}+1)}^{(n_{sa}-j_{sa}^{ik}+1)} \\
 & \frac{(n_i-1)}{(j_s-2)(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_s+1)(n_{is}+j_{sa}-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}+1)!(n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)!(n-j^{sa})!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)!(j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-j_s-l_{k_1}-l_s)!(j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})!(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} \right) - \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_{ik}-j_s+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(j^{sa}-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq i l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^s - \mathbb{k}_2, j_{sa}^s - \mathbb{k}_1 - \mathbb{k}_2\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k}_1 \wedge$$

$$\mathbb{k}_z : z = i \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \binom{(\quad)}{\quad}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
& \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S \Rightarrow j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{()}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}^{ik}+1}^{(j_s-l_{ik})} \sum_{j_{ik}=\dots}^{l_{ik}-\dots} \sum_{j_{sa}^{ik}-1}^{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n)} \sum_{(j^{sa}=j_{sa}-j_{sa}^{ik})}^{(n_i+l+1)} \sum_{(n+l-k)}^{(n_i+l+1)} \sum_{(n_i+l-k)}^{(n_i+l+1)} \frac{(n_i + j_{ik} + j_{sa}^s - s - l_{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n - 1 \wedge$$

$$l_s + j_{sa}^{ik} - n - l_{ik} - 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} = j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} = j_s + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - 1 < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n}^n \sum_{(n_i=n)}^{(n-j_s+1)} \\
 &\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n-j^{sa}+1)} \\
 &\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_j)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - l)}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik}$$

$$l_{sa} > D + l_{ik} + j_{sa} - n - j_{sa}^{ik}$$

$$D \geq n < n \wedge l = 0 \Rightarrow 0 \wedge$$

$$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\}$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!}$$

$$\frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{i_s} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(j_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - l_{sa} - j_{sa} - 1)! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n \wedge l \neq i \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_{sa}^{sa} + j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{sa} + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$l_{sa} > D + j_{sa} + j_{sa} - n - j_{sa}^{ik} \wedge$

$l_{sa} \geq n - l_{sa} \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=1}^n \sum_{(n_i=n+j_s+1)}^{(n-j_s+1)}$$

$$\sum_{(n_{is}+j_s-j_{ik})}^{(n_{ik}+j_{ik}-j_{sa})} \sum_{(n_{ik}+j_{ik}-j_{sa})}^{(n_{ik}+j_{ik}-j_{sa})}$$

$$\frac{(n_i - n_{is} - j_s + 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j_{sa} - j_{ik})! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, i}^S = \sum_{k=l}^{(j_{sa}^{ik}+1)} \sum_{j_{sa}^i}^{(j_{sa}^{ik}+1)} \sum_{j_{sa}^i}^{(l_s + j_{sa} - l)} \sum_{j_{sa}^i}^{(j_{sa}^i + 1)} \sum_{n_i = n + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{n_{is} = n + \mathbb{k}_2 - j_{ik} + 1}^{(n_{is} + j_s - \mathbb{k} - \mathbb{k}_1)} \sum_{n_{sa} = n - j_{sa} + 1}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_i \wedge$

$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$

$s > 3 \wedge s = s + 1$

$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s + j_{sa}^{ik} - l + 1}^{(n_{sa} - j_{sa} - l - j_{sa} + 1)} \sum_{(j^{sa}=j_{ik} + l_{sa} - l_{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik}=n+k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa}=n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{()} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s-k-l} \sum_{j_{sa}^{ik}=j_{ik}+l_{sa}-l_{ik}}^{()} \sum_{n_i=n-k}^{n} \sum_{n_{is}=n+k-j_s+1}^{()} \sum_{n_{is}+j_s-j_{ik}-k_1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{()} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i l \wedge \dots \leq D + j_{sa} - n \wedge$$

$$1 \leq \dots < j_{ik} - j_{sa} \dots \wedge$$

$$j_{ik} = j^{sa} + \dots - j_{sa} \wedge$$

$$\dots + j_{sa} \dots \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{n_i=n+l_{k_2}-j_{sa}+1}^{(n_i-j_s)} \sum_{(n_{is}=n+l_{k_2}-j_{sa}+1)}^{(n_i-j_s)}$$

$$\sum_{n_{sa}=n+l_{k_2}-j_{ik}}^{(n_{sa}=n-j_{sa}+1)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}=n-j_{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{sa} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+l_{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k2})}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{lk} - l_{k1})!}{(n_i - n - l_{k1} - l_{k2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{lk})!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - n)!}{(D + j^{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$2 \leq l \leq D + l_s + j_{sa} - n - l$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} < n + j_{sa} - s \wedge$

$l_{k1} - j_{sa}^{ik} + 1 > l_{k1} \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$

$D \geq n < n \wedge l = l_{k1} \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, l_{k1}, l_{k2}, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + l_{k1} \wedge$

$l_{k2}: z = 2 \wedge l_{k2} = l_{k1} + l_{k2} \Rightarrow$

$$fz^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa}-l)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(j^{sa}+1)} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1) \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{sa}-n_{sa}-1)!}{(j^{sa}-j_{sa}-1)! \cdot (n_{sa}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(j^{sa}+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - j_{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
 & \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = l_{sa} + n - D)}^{(l_s + j_{sa} - l)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\cdot)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f^z = f^z(i_s, j_{ik}, j^{sa}) = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_i)!} \sum_{k=l}^{()} \sum_{j_s=j_{ik}^{ik}+1}^{()} \sum_{l_s=j^{sa}+l_{ik}-l_s}^{()} \sum_{j_{sa}=l_{sa}+n-D}^{()} \sum_{j_s=j_s+1}^{()} \sum_{n_{is}=n+k-j_s+1}^{()} \sum_{n_{is}+j_s-j_{ik}-k_1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{()} \frac{(n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

- $\geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$
- $2 \leq l < D + l_s \wedge n - l_{sa} \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{sa} = j^{sa} - j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$
- $D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$
- $D \geq n < n \wedge l = k \geq 0 \wedge$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{sa}=j_{ik}+l_{sa})}^{(n)} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(j_s=2)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \binom{(\quad)}{\quad} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \\
 & \frac{\binom{n_i-1}{j_s-2} \binom{n_i-n_{is}-1}{n_i-n_{is}+1}}{\binom{n_{is}-n_{ik}-1}{j_{ik}-j_s-2} \binom{n_{is}+j_s-n_{ik}-j_{ik}}{n_{is}+j_s-n_{ik}-j_{ik}}} \\
 & \frac{\binom{n_{ik}-n_{sa}-1}{j^{sa}-j_{ik}-1} \binom{n_{sa}+j_{ik}-n_{sa}-j^{sa}}{n_{sa}+j_{ik}-n_{sa}-j^{sa}}}{\binom{n_{sa}-1}{n_{sa}+j_s-n-1} \cdot \binom{n-j^{sa}}{n-j^{sa}}} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \\
 & \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \binom{(\quad)}{\quad} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \binom{(\quad)}{\quad} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq i l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + j_{sa} - n - l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{\binom{()}{j^{sa}=j_{ik}+l_{sa}-l_{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s + 1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
& \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{l_s + j_{sa}^{ik} - l} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{(\quad)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\quad)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{\mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l} \sum_{(j_s=2)}^{(l_{sa}+n-D-j_{sa})}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} \cdot \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}=j_{ik}+k}^{(n-j_{sa}+1)} \sum_{j_{ik}=j_{sa}^{ik}-1}^{(n+j_{sa}^{ik}-l_{sa}+1)} \sum_{n_{is}=n+l_k}^{(n)} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_{is}+j_s-j_{ik}-l_{k_1})} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_{sa}-l_{ik})}^{()}$$

$$\sum_{i=n+k}^n \sum_{(n_i=n-k+1)}^{(n_i+1)}$$

$$\sum_{n_i=n_{is}+j_{sa}^{ik}-k_1}^{()} \sum_{(n_i+1)}^{()} \sum_{(j^{sa}-k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq D - n - 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} - 1 \leq l \leq l_s - 1 \wedge$$

$$1 \leq i_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} = j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - l_{sa} < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{\mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n}^n \sum_{(n_i=n+j_s+1)}^{(n_i=j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j_{sa})} \sum_{(n_{is}=n-j^{sa}+1)}^{(n_{is}=n-j^{sa}+1)}$$

$$\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - 1)! \cdot (l - 2)!}$$

$$\frac{(D - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - l_{sa} - j^{sa} - l_{ik})!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - l_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{ik} - n < l_{ik} \wedge D + l_s + j_{sa}^{ik} - j_{sa} - 1$$

$$D > n < n \wedge \mathbb{k} \geq \mathbb{k}_1 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^b \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = j_{sa} - \mathbb{k} \wedge$$

$$\mathbb{k}_2 = j_{sa} - \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-l)}$$

$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa} - 1)! \cdot (n + j^{sa} - j^{sa} - s)!}$$

$$\sum_{j_{ik}=1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{sa}=1}^{(l_s+j_{sa}-l)} \sum_{j_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{j_{ik}-n_{sa}} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+l_{k_1}}^n \sum_{(n_{is}=n+l_{k_1}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq i l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=2}^{j_{sa}-l-j_{sa}^{ik}+1} f_z(j_{sa}, j_{ik}, j^{sa}) \\
 & \sum_{j_{ik}=j_{sa}^i+l_{ik}}^{j_{sa}} \sum_{j_{sa} (j^{sa}=l_{ik}+n+s-D-j_{sa}^{ik})} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \sum_{(l_s+j_{sa})}^{()} \sum_{(j_{ik}=j^{sa}+l_{ik}-l_{sa})}^{()} \sum_{(j_{sa}=l_{ik})}^{()} \sum_{(j_{sa}^{ik})}^{()} \sum_{(n_i-j_s+1)}^{()} \sum_{(n_{ik}+l_{ik}-j_s+1)}^{()} \sum_{(n_{ik}=n_{is}+j_{sa}-l_{sa}-l_{k_1})}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()} \frac{(n_i + j_{ik} - j_{sa}^s - j_s - l_{k_1} - l_{k_2} - j_{sa}^{ik})!}{(l_i - n_{ik} - l_{k_1} - l_{k_2} - 1)! \cdot (n + l_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

- $D \geq n < n \wedge l \neq 1 \wedge l_s \leq n - 1 \wedge$
- $2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$
- $j_{ik} - j_s + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - n \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$
- $D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$
- $D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$
- $j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l \wedge$$

$$l_{k_2}: z = 2 \wedge l = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=l} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{k_1}+n}^{l_s+j_{sa}^{ik}-l} \sum_{(n_i-j_s)}^{(n_i-n_{is}-1)}$$

$$\sum_{(n_i=n+l_{k_2}-j_s+1)}^{(n_i=n+l_{k_2}-j_s+1)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}=n-j_{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=l} \sum_{(j_s=2)}^{(l_s-l+1)}$$

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$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_2})}$$

$$\frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s) \cdot (n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j_{sa})!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - 1)!}$$

$D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$

$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq i l - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$

$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$

$s > 3 \wedge s = s + 1 \wedge$

$\mathbb{k}_2 : z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - l_{ik} - j_{sa} + 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - j_s - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{l_s + j_{sa}^{ik} - l} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{(\cdot)} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(\cdot)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{sa}^{ik}} = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{(l_{ik}-l+1)} \sum_{j_{ik}=l_{ik}+n-D}^{(j_{sa}=j_{ik}+l_{sa}-l_{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \frac{(l_s - l + 1)!}{(l_{ik} + n - j_{sa}^{ik} + 1)!} \cdot \\
 & \sum_{i_s=0}^{l_{ik} - 1} \frac{(l_s - l + 1)!}{(i_s + j_{sa}^{ik} - 1)! \cdot (j_{ik} + l_{sa} - l_{ik})!} \cdot \\
 & \sum_{n_{ik}=0}^{n_{is} + k} \frac{(l_s - l + 1)!}{(n_{is} + k)! \cdot (n_{is} + k - j_s + 1)!} \cdot \\
 & \sum_{n_{ik}=0}^{n_{is} + j_{ik} - k_1} \frac{(l_s - l + 1)!}{(n_{ik} + j_{ik} - j^{sa} - k_2)!} \cdot \\
 & \sum_{n_{ik}=0}^{n_{is} + j_{ik} - 1} \frac{(l_s - l + 1)!}{(n_{sa} = n - j^{sa} + 1)!} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{()} \sum_{(j^{sa}=j_{ik}+l_{sa}-l)}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{()} \sum_{(n_{ik}+j_{ik}-j^{sa}=n_{is}-l_{k_2})}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^s - l_{k_1} - l_{k_2} - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(n - l_i)!}{(D + j_s - n - l_i)! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \geq n - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l_s \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa}^s \wedge$$

$$l_{ik} - j_{sa}^{ik} > l_s \wedge l_{sa}^{ik} - j_{sa}^{ik} = l_{ik} \wedge$$

$$D + j_s - n < l_{ik} - D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$l_{k_2}: z = 2 \wedge k = l_{k_1} + l_{k_2} \Rightarrow$$

$$\begin{aligned}
 f_{z^S \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-j_{ik}-1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{sa}=n-j^{sa}-k_2)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l = i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_i \wedge$

$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$

$s > 3 \wedge s = s + 1$

$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{l \binom{()}{j_s=1}}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{\binom{(l_{sa}-l+1)}{j^{sa}=j_{sa}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(n_i-j_{ik}-\mathbb{k}_1+1)}{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}} \sum_{\binom{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}{n_{sa}=n-j^{sa}+1}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!}$$

$$\sum_{k=0}^{j_{sa}^{ik}} \binom{j_{sa}^{ik}}{k}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{j_{sa}^{ik}} \binom{j_{sa}^{ik}}{j_{ik}}$$

$$\sum_{n_i=n}^n \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{n_{ik}=n_i-j_{ik}+1} \sum_{k_1=0}^{k_2} \binom{k_2}{k_1}$$

$$\frac{(n_i - n - k_1 + j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$(n_i \geq n < n_{sa} = i l \wedge n_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$n \wedge l = i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa} = \left(\sum_{k=1}^{\mathbb{k}} \sum_{j_s=1}^{(\cdot)} \sum_{j_{ik}=1}^{(\mathbb{l}_{ik} + j_{sa} - i^k - 1)} \sum_{j_{sa}=1}^{(n_i - \mathbb{k}_1 + 1)} \sum_{n_i=n+\mathbb{k}}^{(n_i - \mathbb{k}_2 - j_{ik} + 1)} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{sa} - \mathbb{k}_2)} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(\mathbb{l}_{ik} - \mathbb{l}_s - j_{sa}^{ik} + 1)!}{(\mathbb{l}_{ik} - j_{ik} - \mathbb{l}_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - \mathbb{l}_{sa} - s)!}{(D + j_{sa} - n - \mathbb{l}_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left(\sum_{k=1}^{\mathbb{k}} \sum_{j_s=1}^{(\cdot)} \sum_{j_{ik}=j_{sa}^{ik}}^{\mathbb{l}_{ik} - i^{l+1}} \sum_{j_{sa}=j_{ik} + j_{sa} - j_{sa}^{ik} + 1}^{(\mathbb{l}_{sa} - i^{l+1})} \right)$$

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$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j^{sa} - l_s)!} \cdot \\
 & \frac{(l_{sa} - l_s - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + l_{ik} - j_{sa})!} \cdot \\
 & \left(\frac{(D - j_{sa} - l_{sa} - s)!}{(n + j^{sa} - n - l_s)! \cdot (n + j^{sa} - j^{sa} - s)!} \right) \cdot \\
 & \sum_{k=i}^{()} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j_{sa}=j_{sa})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$(D - n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l = l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$D \geq n < n \wedge l = l \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j^{sa} = \left(\sum_{k=i}^l \sum_{j_s=1}^{(\cdot)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\left(\sum_{k=i}^{l} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i+1} \sum_{(j^{sa}=j_{sa}+n-D)}^{(l_{sa}-i+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}-k_2}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - j_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{sa} - j_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=i}^{l} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j^{sa}=j_{sa})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n_i-j_{ik}-k_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{()}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=i}^{\binom{()}{l}} \sum_{j_s=1}^{\binom{()}{l}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-i^{l-j_{sa}+1}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{l}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^n \sum_{j_s=1}^{(j_{ik} - j_{sa}^{ik})} \frac{\sum_{j_{ik}=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{j_{sa}=1}^{(j_{sa} - l_{sa} - j_s)} \frac{\sum_{n_1+k_1=n+l_s}^n \sum_{n_2+k_2=n+l_s}^n \frac{(n_1 - n - k_1 - k_2)!}{(n_1 - n - k_1)! \cdot (n_2 - n - k_2)!} \cdot \frac{(j_{sa} - k_1 - k_2)!}{(j_{sa} - k_1)! \cdot (j_{sa} - k_2)!}}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i \wedge l_s = D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{sa} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{sa} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge j_{sa} + j_{sa}^{ik} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D - l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge k = k_1 > 0 \wedge$$

$$j_{sa} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_{zS \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=1}^n \sum_{j_s=1}^{(j_{ik} - j_{sa}^{ik})}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \binom{l_{sa}-i+1}{j_{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{\substack{(n_i-j_{ik}-l_{k_1}+1) \\ (n_{ik}=n+l_{k_2}-j_{ik}+1)}} \sum_{\substack{n_{ik}+j_{ik}-j^{sa}-l_{k_2} \\ n_{sa}=n-j^{sa}}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa})!} \\
 & \frac{(n - j^{sa} - n - l_{sa})!}{(n - j^{sa})! \cdot (n - j^{sa})!} \\
 & \frac{(j_{ik} - l_{sa} - j_{ik} - l_{sa} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 & \sum_{k=l}^{()} \sum_{j_s=1}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{j^{sa}=j_{sa}}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{\substack{() \\ (n_{ik}=n_i-j_{ik}-l_{k_1}+1)}} \sum_{\substack{() \\ n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{i=1}^n \sum_{j=1}^n \binom{(\cdot)}{i, j, j^{sa}} \sum_{l=1}^n \binom{(\cdot)}{l, l - j_{sa}^{ik}, l - j_{sa}^{ik} + 1} \sum_{j_{ik}=l_{sa}+n+j_{sa}-j_{sa}^{ik}}^{D-j_{sa}} \binom{(\cdot)}{j_{ik}, j_{sa}^{ik}} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik})-\mathbb{k}_1+1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{k=1}^n \sum_{j=1}^n \binom{(\cdot)}{k, j, j^{sa}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_{ik})!}{(D + s - n - \mathbb{k}_1 - \mathbb{k}_2)! (n - s)!}$$

$$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^i = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^{i-1}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^{i-1}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_2: 2 \leq \mathbb{k}_2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{Z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=i} \sum_{(j_s=1)}^{()}$$

$$(l_{ik} + j_{sa} - i - j_{sa}^{ik} + 1)$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{ik}+n+s-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)} \sum_{n_{sa}=n-j^{sa}+1}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - n_{sa} + 1)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} - 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (n_{sa} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_{sa})!} \cdot \sum_{j_{ik}=j_{sa}^{ik}}^{(n)} \sum_{j_s=1}^{(n)} \sum_{j_{sa}=j_{sa}^{ik}}^{(n)} \sum_{n_i=n_{ik} - j_{ik} - l_{k_1} + 1}^{(n)} \sum_{n_{sa}=n_{ik} + j_{ik} - j^{sa} - l_{k_2}}^{(n)} \frac{(n_i + j_{ik} - l_{k_1} - l_{k_2})! \cdot (j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n \wedge n \wedge l = i \wedge l \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} - j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{l} \sum_{j_s=1}^{()} \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}} \frac{(n_i - n_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)! \cdot (n_i - n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \sum_{k=1}^{()} \sum_{j_s=1}^{()} \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{j_{sa}=j_{sa}}^{()} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{()} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

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$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = {}_i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{\binom{()}{l}} \sum_{j_s=1}^{\binom{()}{l}}$$

$$\sum_{j_{ik}=j_{sa}+l_{ik}-l_{sa}}^{\binom{l_{sa}-l+1}{j_{sa}=j_{sa}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{\binom{n_i-j_{ik}-\mathbb{k}_1+1}{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}} \sum_{n_{sa}=n-j_{sa}+1}^{\binom{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}{n_{sa}=n-j_{sa}+1}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=i}^{\binom{()}{l}} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{\binom{()}{n_{sa}=n_{ik}+j_{sa}-l_{k_2}}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})! \cdot (l_i)!}$$

$$D \geq n < n \wedge l = i! \wedge l_{sa} \leq D + j_{sa} \wedge n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = i! \geq 0 \wedge$$

$$j_s \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, l_{k_2}, \dots, j_{sa}^{ik}\}$$

$$s > 3 \wedge s = s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_{k_z} = l_{k_1} + 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=i}^{\binom{()}{l}} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-i!-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{\binom{()}{l}}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - l_{k_1} + 1)! \cdot (j_{ik} - l_{k_2})!} \cdot \\
 & \frac{(l_{sa} - j_{sa})!}{(l_{sa} - j^{sa} - n - l_{k_1})! \cdot (l_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(i)} \sum_{(j_s=1)}^{(i)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{(i)} \sum_{(j^{sa}=j_{sa})}^{(i)} \\
 & \sum_{n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{(i)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{(i)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$D - n < l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{sa}^{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j^{sa} = \sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{(l_{sa}=1)}^{()} \sum_{(a=l_{sa}+n-D)}^{()} \sum_{(n_i=n+\mathbb{k})}^{()} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{(n_{sa}=n-j^{sa}+1)}^{()} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$f_{zS \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{\binom{()}{l}} \sum_{j_s=1}^{\binom{()}{l}}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-i-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{\binom{()}{l}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{()} \sum_{j_s=1}^{()} \sum_{j_{ik} \leq (j_s - j_{sa})} \sum_{\substack{n+l_k (n_{ik}=n_i - l_{k_1} - l_{k_2}) \\ + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2}} \leq ()} \frac{(n_i - n - l_{k_1} - l_{k_2})! \cdot (j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!}{(D - l_i)! \cdot (D + s - n - l_i)! \cdot (n - s)!}$$

$D \geq n < n \wedge l = i! \wedge l_s = D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_s \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D - l_s + j_{sa}^{ik} - n - 1 \wedge$

$D \geq n < n \wedge l_{k_1} + l_{k_2} > 0 \wedge$

$j_{sa}^{ik} \geq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, l_{k_1}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + k \wedge$

$l_{k_2}: z = 2 \wedge k = l_{k_1} + l_{k_2} \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{()} \sum_{j_s=1}^{()}$$

$$\sum_{j_{ik}=j_{sa}+l_{ik}-l_{sa}} \binom{l_{ik}+j_{sa}-i-l-j_{sa}+1}{j_{sa}=l_{ik}+n+s-D-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j_{sa}^{ik}}^{n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} + j_{sa})!}$$

$$\frac{(n - j_{sa} - n_{sa} - 1)!}{(n - j_{sa})! \cdot (n - j_{sa})!}$$

$$\frac{(n_{ik} - l_{sa} - j_{ik} - 1)!}{(n_{ik} - j_{ik} - l_{sa} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + n_{sa} - l_{sa} - 1)!}{(D + n_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{()} \sum_{j_s=1}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{j_{sa}^{ik}=j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k} \sum_{n_{ik}=n_i-j_{ik}-l_{k_1}+1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=1)}^{(j_{sa}-j_{sa}^{ik})} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=1}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=1)}^{(j_{sa}-j_{sa}^{ik})}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_s)!}{(D + s - n - l_s)! (n - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} \leq l_s \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^{sa}, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_2: 2 \leq \mathbb{k}_2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{Z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - l_{sa})!} \cdot \sum_{j_{ik} = n_{is} + j_s - j_{sa}^{ik} + 1}^{n_{is} + j_s - j_{sa}^{ik}} \sum_{j_{sa} = l_{sa} + n - D}^{l_s + j_{sa} - l} \sum_{n_i = n + k}^n \sum_{n_{is} = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2} \frac{(l_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$n_{is} + j_s - j_{sa}^{ik} + 1 \leq l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa}^{ik} = \sum_{l=1}^s \sum_{(j_s=l_s+n-D)}^{(n-l+1)} \sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{(n-l+1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n-l+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n-j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-j_{sa}^{ik}+1)} (j_s^{sa}+n-D) \sum_{i=n+kk}^{(n_i+1)} (n_i+1) \sum_{n=n_{is}+j_s^{sa}-kk_1}^{(n_{sa}+j_s^{sa}-kk_2)} (n_i + j_{ik} + j_{sa}^{sa} - j_s - s - j_{sa}^{ik} - kk_1 - kk_2)! \cdot \frac{(l_s - l - 1)!}{(l_s + j_{sa} - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + j_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > n - n + 1 \wedge$$

$$2 \leq l \leq D + j_{sa} - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$2 \leq i_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{sa} + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = kk > 0 \wedge$$

$$j_{sa} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{sa} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, kk_1, j_{sa}^{ik}, kk_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + kk \wedge$$

$$kk_z: z = 2 \wedge kk = kk_1 + kk_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)} \right)$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = l_{sa} + n)}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{is} - j_s + 1 - k_2)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik}} \sum_{(n_{sa} = n - j^{sa} + 1)}$$

$$\frac{(n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - j_s + 1)!}$$

$$\frac{(n_{ik} - k_1 - 1)!}{(n_{sa} + j_s - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - 1) \cdot (n_{sa} - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1)} \sum_{(j^{sa} = l_s + j_{sa} - l + 1)}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - j^{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j_s - l - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + j_{ik} - n_{sa} - j^{sa})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)} \right) \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = l_s + j_{sa} - l + 1)}^{(l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(l_s - l - 1)} \sum_{\substack{\Delta \\ (j_s = l_s + n - k)}} \\
 & \sum_{\substack{\Delta \\ (j_s = l + 1)}} \\
 & \sum_{\substack{\Delta \\ (n_i = l_{ik} + n - k)}} \sum_{\substack{\Delta \\ (j_{sa} = l_{ik} + j_{sa} - l - j_{sa}^{ik} + 2)}} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{j_{ik} - k_1} \sum_{(n_{sa} = n - j_{sa} + 1)}^{(n_{ik} + j_{ik} - j_{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \frac{(l_s - l - 1)!}{(n_i - j_s + 1)!} \cdot \frac{(n_i - l_{k_1} - l_{k_2} + l_k - j_s + 1)!}{(n_{ik} = n_{is} + j_{sa}^{ik} - l_{k_1} - l_{k_2})! \cdot (n_{sa}^{ik} + j_{ik} - j^{sa} - l_{k_2})!} \cdot \frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - l_{k_1} - l_{k_2} - l_k + j_{sa}^s + j_{sa} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 0 - n + 1 \wedge$$

$$D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 2 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} - j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - l_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - l_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = l_k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\frac{(n_{i_s}+1)}{(n_{i_s}+n+\mathbb{k}-1)}$$

$$\frac{(j_s-j_{ik}-\mathbb{k}_1)!(n_{i_s}+j_{ik}-j^{sa}-\mathbb{k}_2)}{(n_{i_s}+n+\mathbb{k}-1)}$$

$$\frac{n_{ik}=n_{i_s}-j_{ik}+1}{(j_s-2)! \cdot (n_{i_s}-n_{i_s}-j_s+1)!}$$

$$\frac{(n_{i_s}-n_{i_s}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{i_s}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k_2})}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa} - l_{k_1})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa} - l_{k_1})!}$$

$$\frac{(l_s - l + 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - \dots)!}{(D + j^{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq l \leq D + l_s + j_{sa} - n - l$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \dots - j_{sa}^{ik} \leq j_s \leq n + j_{sa} - s$

$l_{k_1} - j_{sa}^{ik} + 1 \leq l_{k_1} \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l = \dots = 0 \wedge$

$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, l_{k_2}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge j_{sa} = s + l_{k_1} \wedge$

$l_{k_z}: z = 2, \dots, k = l_{k_1} + l_{k_2} \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \binom{(\quad)}{\quad} \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \\
 & \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa})!} \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j_{sa})!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l-j_{sa}+1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \binom{(\quad)}{\quad} \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - j_{sa} - 1)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - l_{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} + l_{sa} - s)!}{(D + j^{sa} - j_s - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{l_s + j_{sa}^{ik} - l} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \\
& \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{l_s + j_{sa}^{ik} - l} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{()} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^n \sum_{(n_{is} = n_{is} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$j_{sa}^{ik} = \sum_{l=1}^{j_s} \sum_{j_{ik}=l}^{j_{sa}^{ik}} \sum_{j_{sa}^{sa}=l}^{j_{sa}^{sa}+1} \binom{l+1}{j_{sa}^{sa}} \binom{l+1}{j_{sa}^{ik}-l} \binom{l+1}{j_{sa}^{sa}+1}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l} \sum_{j_{sa}^{sa}=l}^{j_{sa}^{sa}+1} \binom{l+1}{j_{sa}^{sa}} \binom{l+1}{j_{sa}^{ik}-l} \binom{l+1}{j_{sa}^{sa}+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{()} \sum_{j_{ik}=l_s+j_{sa}^{ik}-1}^{()} \sum_{j_{ik}=l_s+j_{sa}^{ik}-1}^{()} \sum_{n_i=0}^n \sum_{n_i=0}^n \sum_{n_{is}=n+k-j_s+1}^{()} \sum_{n_{is}=n+k-j_s+1}^{()} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - j_s + 1 \wedge 2 \leq l_s < D + l_{ik} - j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge 2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa} - j_{sa}^{ik} - j_{sa} \wedge j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge D \geq n < n \wedge I = k > 0 \wedge j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \left(\sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}^{(j_{ik} - j_{sa}^{ik} + 1)} \right)$$

$$\sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{l_s + j_{sa}^{ik} - l} \sum_{(j_s = l_s + n - D)}^{(n_i - j_s + 1)} \sum_{(n_{ik} + \mathbb{k}_1 + \mathbb{k}_2 - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} + \mathbb{k}_1 + \mathbb{k}_2 - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_{ik} + \mathbb{k}_1 + \mathbb{k}_2 - j_s + 1)} \sum_{(n_{sa} = n - j_{sa} + 1)}^{(n_{ik} + \mathbb{k}_1 + \mathbb{k}_2 - j_s + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \sum_{j_{ik}=l_s+j_{sa}^{lk}-l+1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-k_1)} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)!(n-j^{sa})!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)!(j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-l_s)!(j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} \right) + \\
 & \left(\sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{(\cdot)} \right) \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(n_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{lk} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_s + n - D)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} - l + 1} \sum_{(j^{sa} = l_{ik} + j_{sa} - l - j_{sa}^{ik} + 2)}^{(l_{sa} - l + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜZ

AYLA

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_s - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (j_{sa} + j_s - j_s)!} + \\
& \sum_{k=l}^{j_{sa}^{ik} - j_{sa}^{ik} + 1} \sum_{j_{sa}^{ik} - j_{sa}^{ik} + 1}^{j_{sa}^{ik} - j_{sa}^{ik} + 1} \sum_{j_{sa}^{ik} - j_{sa}^{ik} + 1}^{j_{sa}^{ik} - j_{sa}^{ik} + 1} \\
& \sum_{j_{sa}^{ik} - l}^{j_{sa}^{ik} - l} \sum_{(l_{sa} - l + 1)}^{(l_{sa} - l + 1)} \sum_{j_{sa}^{ik} - l_{sa} + n + j_{sa}^{ik} - j_{sa}}^{j_{sa}^{ik} - l_{sa} + n + j_{sa}^{ik} - j_{sa}} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1) \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l_s}^{(l_s-1)}$$

$$\sum_{j_{ik}=j_{ik}^{l-1}}^{(l_{ik}-l+1)} \sum_{j_{sa}=j_{sa}^{l-1}}^{(l_{sa}-j_{sa}^{l-1}+1)}$$

$$\sum_{n_i=n_i^{l-1}}^n \sum_{n_{is}=n+l-k-j_s+1}^{(n_i-1)}$$

$$\sum_{n_{ik}=n_{ik}^{l-1}-j_{ik}+1}^{(n_{is}+j_{ik}-k_1)} \sum_{n_{sa}=n-j_{sa}^{l-1}}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

GÜLDÜZMÜNYA

$$\left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} (j^{sa}=j_{sa}-j_{sa}^{ik})$$

$$(n_i + 1)$$

$$+ \mathbb{k} (n_{is} = n + \mathbb{k} - 1)$$

$$(\cdot)$$

$$= n_{is} + j_s - \mathbb{k}_1 (n_{sa} = n_{sa} - \mathbb{k}_2)$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - s - j_s^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$(D - l_i)!$$

$$(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!$$

$$D \geq n < n \wedge l_s > n + 1 \wedge$$

$$2 \leq l \leq D + j_{sa} - l_{sa} \wedge$$

$$2 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} = n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{(l_{sa}+n-D-j_{sa})} \\
 &\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-j_{ik}^{ik_1}}^{n_{is}+j_s-j_{ik}^{ik_1}-l_{ik_1}+j_{ik}^{ik_2}-l_{ik_2})} \sum_{(n_{sa}=n-j_{sa}^{sa})}^{(n_i-j_s+1)} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - n_{ik} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜZYA

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} j_s, j_{ik}, j^{sa} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\ &\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\ &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \end{aligned}$$

GÜLDÜNYA

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{l=1}^{(j_s - j_s - l + 1)} \sum_{j_s = j_{ik} - j_{sa}^{ik}}^{(j_s - j_s - l + 1)} \sum_{j_{ik} = n_{is} + j_s - j_{ik} - l_{k_1}}^{(j_s - j_s - l + 1)} \sum_{j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}^{(n_i - j_s + 1)} \\
& \sum_{n_i = n + l_{k_1}}^{n_i} \sum_{(n_{is} = n + l_{k_1} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(j_{ik} = n_{is} + j_s - j_{ik} - l_{k_1})}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - l_{k_2})} \\
& \frac{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D - n > l_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D - l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}}^S = \left(\sum_{l=1}^{(l_s - n - D - j_{sa})} \sum_{(j_s = n - D)}^{(n - D - j_{sa})} \sum_{j_{ik}=l}^{l_{ik}-l+1} \sum_{j_{sa}=j_{ik}-D-j_{sa}}^{(j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}+j_{ik}-\mathbb{k}_1} \sum_{n_{ik}=n_{is}-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}^{sa}}^{n_{is}+j_s-j_{ik}^{sa}} \sum_{(n_{sa}=n-j_{sa}^{sa})}^{n_{ik}-j_{ik}^{sa}-k_2} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left(\sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{(l_{sa}+n-D-j_{sa})} \right. \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \\
 & \left. \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \right)
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}
 \end{aligned}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! (j_{ik} - j_s - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - 1)! (j_{sa} + j_{sa} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{l_s-l+1} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right)^{\sum_{k=l}^{l+1} \binom{n+l-k}{k} \binom{n+l-k}{n+l-k-j_{sa}+k}}$$

$$\sum_{n_i=n+k}^n \binom{n_i-j_s+1}{n_i=n+k} \binom{n_i-j_s+1}{n_i=n+k-j_s+1}$$

$$\sum_{j_{ik}=n_{is}+j_s-j_{ik}-k_1}^{\binom{n}{j_{ik}=j_s+k-1}} \binom{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}$$

$$\frac{\binom{n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2}{(n_i - n - k_1 - k_2)!} \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}{(l_s - l - 1)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D - n < l_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D - l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=l}^{\mathbb{k}-j_{sa}^{ik}+1} \sum_{(j_s=n-D)}^{(l_s+j_{sa})} \sum_{(j_{ik}=j_{sa}^i)}^{(j_{sa}=l_{ik}+j_{sa}-D-j_{sa}^{ik})} \sum_{n_i}^n \sum_{\mathbb{k}} (n_{is}=n+\mathbb{k}-j_s+1) \sum_{n_{ik}=n_{is}-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} (n_{sa}=n-j_{sa}+1) \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(k - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1}^{(n_{is}+j_s-j_{ik}-k_2)} \sum_{(n_{sa}=n-j^{sa}+)}^{(n_{sa}-j^{sa}+)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - n_{ik} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \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)}
 \end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$j_{sa}^{ik} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} ()$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik} = l_s + 1}^{l + 1} \sum_{(j^{sa} = j_{ik} - l_s - j_{sa}^{ik})}^{()} \\
 & \sum_{n_i = n + k}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_i + 1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!} \cdot \frac{(j_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l)!}{(D + j_s + s - l_i - l)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l_s < D - n + 1$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l_s = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\{j_s, j_{sa}^{ik}, k_1, j_{sa}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_{z \mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{(l_s - l + 1)} \\
 &\sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} - l + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{ik}^{sa})}^{()} \\
 &\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 &\sum_{n_{ik} = n + k_2 - j_{ik}^{sa}}^{n_{is} + j_s - j_{ik}^{sa} - j_{ik}^{sa} + j_{ik}^{sa} - k_2} \sum_{(n_{sa} = n - j^{sa})}^{(n_i - j_s + 1)} \\
 &\frac{(n_i - n_{sa} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 &\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 &\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \\
 &\sum_{j_{ik} = l_{ik} + n - D}^{l_s + j_{sa}^{ik} - l} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{()} \\
 &\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$

$$fz^{S \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \dots$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - l + 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(j_s - j_{sa}^{ik} + 1)} \sum_{j_{ik}=j_{sa}^{ik}-1}^{(j_s - j_{sa}^{ik} - 1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_s - j_{sa}^{ik})} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(j_s - j_{sa}^{ik} - k_2)} \\
& \frac{(l_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$n_{ik} \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa}^{ik} = \sum_{l=1}^n \sum_{(j_s=l_s+n-D)}^{(n-l)} \sum_{j_{ik}=l_{ik}}^{(n-l)} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n-l)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_{sa}=j_s+j_{sa}^{ik})} \sum_{(n_i=j_s+l_{ik}-1)}^{(n_i=j_s+l_{ik}+1)} \sum_{(n+l_k)}^{(n+l_k+1)} \sum_{(n_{is}=n+l_k+1)}^{(n_{is}=n+l_k+1)} \frac{(n_i + j_{ik} + j_{sa}^s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > n - n + 1 \wedge$

$2 \leq l \leq D + j_{sa} - l_{sa} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge$

$j_{ik} = j_s + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} < j^{sa} < j_s + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l = l_k > 0 \wedge$

$j_{sa} = j_s - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + l_k \wedge$

$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$

$$\begin{aligned}
 f_{z^S \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_s+n-D)}^{(l_s+j_{sa}-l)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{is}+j_s-j_{ik}-l_{sa}+j_{ik}-l_{sa}-l_{k_2}}^{(n_{is}+j_s-j_{ik}-l_{sa}+j_{ik}-l_{sa}-l_{k_2})} \sum_{(n_{sa}=n-j^{sa})}^{(n_{sa}=n-j^{sa})} \\
 &\frac{(n_i - n_{sa} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 &\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{sa}-l+1)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{sa}+n-D)}^{()} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{()} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

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$$j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_{sa}+n-D)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot \sum_{l=1}^{(j_s + j_{sa} - l)} \sum_{j_{ik}=j_s}^{l_{ik} - l_{sa} (j_{sa}^{sa} + n - D)} \sum_{n_i=n+l_k}^{(n_i - j_s + 1)} \sum_{(n_{is}=n+l_k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(j_{ik}=n_{is} + j_s - j_{ik} - k_1 (n_{sa}=n_{ik} + j_{ik} - j^{sa} - k_2))}^{()}$$

$$\frac{(j_s + j_{sa} - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n_{i_1} - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

- $D > n \wedge l_s > D - n + 1 \wedge$
- $2 \leq l \leq D - l_s + j_{sa} - n - l_{sa} \wedge$
- $2 \leq j_s = j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}}^S = \sum_{k=l}^{\mathbb{k}-j_{sa}^{ik}+1} \sum_{j_s=n-D}^{j_s=j_{sa}^i-1} \sum_{j_{ik}=j_{sa}^i-D-j_{sa}}^{l_s+j_{sa}^i-1} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{n-l_{sa}+1} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^n \sum_{n_{ik}=j_{sa}-j_{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}} \sum_{(n_{sa}=n-j^{sa})}^{n_{is}+j_s-j_{ik}-k_1+j_{ik}-j^{sa}-k_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{ik} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$\sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - \dots)!}{(D + j_{sa}^s - n - l_{sa})! \cdot (n - l_{sa} - j_{sa}^s - \dots)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - l_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \dots > 0 \wedge$$

$$j_s \leq j_{sa}^l - \dots \wedge j_{sa}^{ik} = j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^s, \dots, j_{sa}^s\}$$

$$s > 4, \dots = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \dots = \mathbb{k}_1 + \dots \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}}^S = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{is} + l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$fz \mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{l_{sa} + j_{sa}^{ik} - l - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})} ()$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}=j_{ik}+l_{sa}-j_s+1}^{(n-j_s+1)} \sum_{j_{ik}=j_{sa}^{ik}-1}^{n+j_{sa}-l_{sa}+1} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)}^{(l_s - l + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(n - l_{sa} + 1)} \sum_{(j^{sa} = l_{sa} - l_{ik})}^{(n - l_{sa} + 1)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} - 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} = j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_s + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik_1}}^{n_{is}+j_s-j_{ik_1}-l_{ik_1}+j_{ik_2}-l_{ik_2}} \sum_{(n_{sa}=n-j^{sa})}$$

$$\frac{(n_i - n_{ik_1} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - 1)!}$$

$$\frac{(n_{ik_1} - n_{ik_2} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik_2} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = \dots + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(l_s+j_{sa}-l)}^{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - l_{sa})!} \cdot \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{(j_s - l)} \sum_{j_{ik} = j^{sa} + l_{ik}}^{(l_s + j_{sa} - l)} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(j_s - l)} \frac{(l_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$n_{sa} \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa}^{ik} = \sum_{l_s=l}^n \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(n-j_{sa}^{ik}+1)} \sum_{j_{ik}^{sa}+l_{ik}-l_{sa}=l_{ik}+n+s-D-j_{sa}^{ik}}^n \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-l)} (j_{sa}=l_{ik}+n+1-D-j_{sa}^{ik}) \sum_{i=1}^n (n_i+1) \sum_{n+l}^n (n_{is}=n+1+l+1) \sum_{n=n_{is}+j_s-l_{k_1}}^{(\cdot)} (n_{sa}^{ik}-l_{k_2}) \frac{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - l_{k_1} - l_{k_2})!}{(n_i - n_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > n - 1 \wedge$$

$$2 \leq l \leq D + j_{sa}^{ik} - l_{ik} \wedge$$

$$2 \leq i_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} < j^{sa} < n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+l_{k_2})}^{(j_{ik}-l_{k_2})}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)}$$

$$\sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{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}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot \sum_{l=1}^{j_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_s} \binom{j_s-l}{j_s-j_{ik}+l} \binom{j_s-l}{j_s-j_{sa}^{ik}+l} \sum_{j_{ik}=n-D}^{j_s-l} \sum_{j_{sa}^{ik}=j_{ik}+l_{sa}-l_{ik}}^{j_s-l} \binom{n_i-j_s+1}{n_i=n+l_k} \sum_{n_{is}=n+l_k-j_s+1}^{n_i-j_s+1} \binom{n_i-j_s+1}{n_{is}=n+l_k-j_s+1} \sum_{j_{ik}=n_{is}+j_s-j_{ik}-k_1}^{j_s-l} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-k_2}^{j_s-l} \binom{n_i-j_s+1}{n_{is}=n+l_k-j_s+1} \binom{n_i-j_s+1}{n_{sa}=n_{ik}+j_{ik}-j_{sa}-k_2} \cdot \frac{(n_i - n_{is} - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n_{is} - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D - n + 1 \leq l_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D - l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

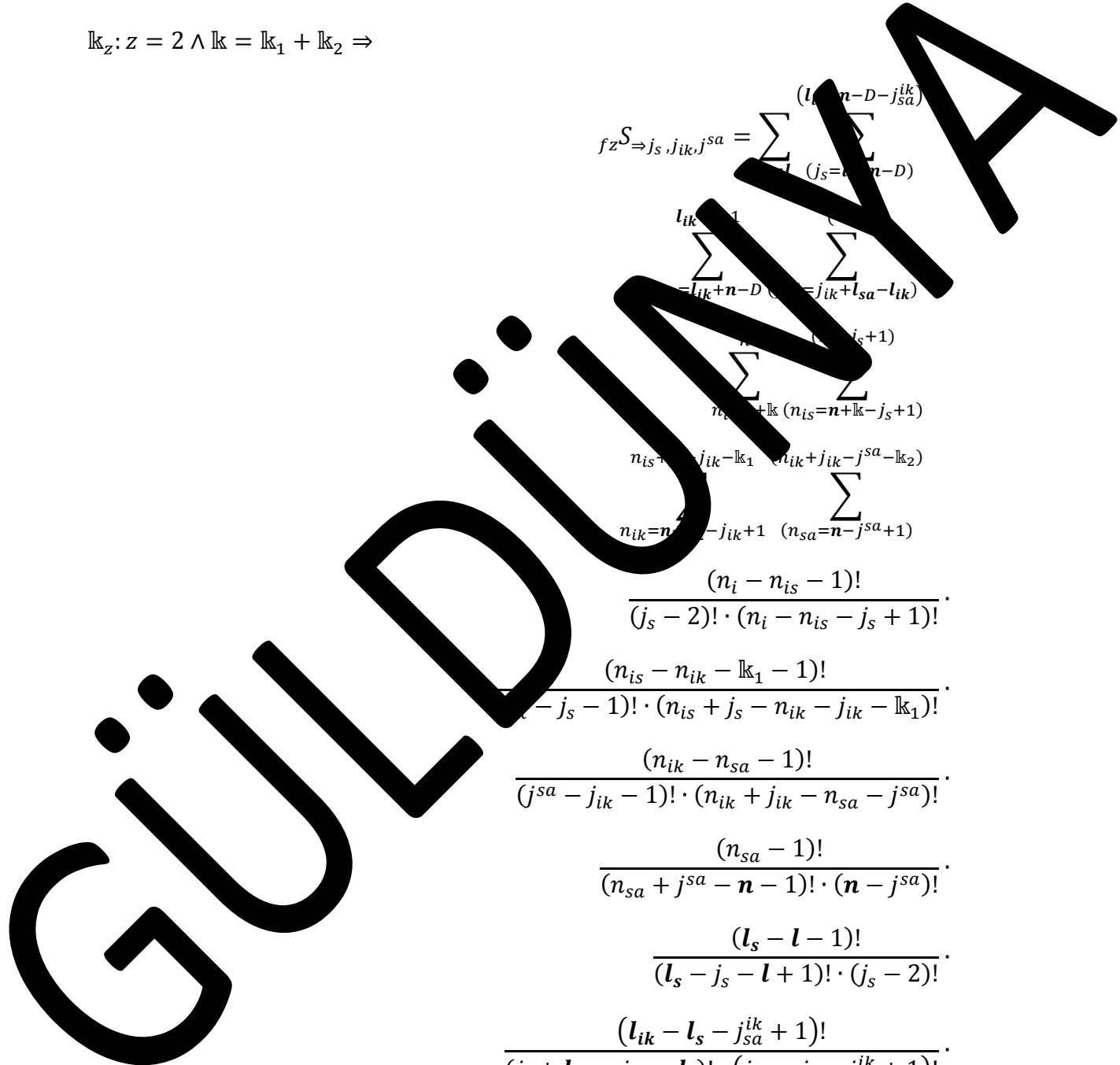
$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS \Rightarrow j_s, j_{ik}, j_{sa} = \sum_{j_s=1}^{(l_s - n - D - j_{sa}^{ik})} \sum_{j_{ik}=1}^{(n - D)} \sum_{j_{sa}=1}^{(n - D - j_{ik})} \sum_{l_{ik}=1}^{(j_{ik} - 1)} \sum_{l_{sa}=1}^{(j_{sa} - l_{ik})} \sum_{n_{is}=1}^{(n_{is} + \mathbb{k} - j_s + 1)} \sum_{n_{ik}=1}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \sum_{n_{sa}=1}^{(n_{sa} - j_{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$



$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-l_{k_1}}^{n_{is}+j_s-j_{ik}-l_{k_2}} \sum_{(n_{sa}=n-j^{sa}+j_{ik}-l_{k_2})} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$

$$f_z^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (j_s - l + 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_i - j_s + 1)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz \mathcal{S} \Rightarrow j_s^{sa} = \sum_{k=l}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{(j_s=2)}$$

$$\sum_{j_s=2}^{l_s + j_{sa} - l} \sum_{(j_{sa}=j_{sa}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\begin{aligned}
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s-l+1)} \sum_{(n_i-j_s+1)}^{(l_s-l+1)} \\
 & \sum_{n+l_k}^{(n_i-j_s+1)} \sum_{(n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_{sa}^{ik}-l_{k_1}}^{(n_{ik}+j_{sa}^{ik}-l_{k_1})} \sum_{(n_{ik}+j_{sa}^{ik}-l_{k_2})}^{(n_{ik}+j_{sa}^{ik}-l_{k_2})} \\
 & \sum_{n_{ik}+l_{k_2}-j_{ik}}^{(n_{sa}=n-j^{sa}+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
 \end{aligned}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

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$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{sa})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa} - \mathbb{k}_1)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - \dots)!}{(D + j^{sa} + s - n - \dots - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge (n + j_{sa} - j_{sa}^{ik} > n - n \wedge$$

$$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_{z^S \Rightarrow j_s, j_{ik}, j^{sa}} &= \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 &\quad \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=j_{sa})}^{(l_s+j_{sa}-l)} \\
 &\quad \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\quad \sum_{n_{is}+j_s-j_{ik}-k_1}^{(n_{is}+j_s-j_{ik}-k_1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)} \\
 &\quad \sum_{n_{ik}=n+k_2-j_{ik}}^{(n_{ik}=n+k_2-j_{ik})} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)} \\
 &\quad \frac{(n_{is}-1)!}{(j_s-2)! \cdot (n_i-j_s+1)!} \cdot \\
 &\quad \frac{(n_{ik}-k_1-1)!}{(n_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-k_1)!} \cdot \\
 &\quad \frac{(n_{ik}-1)! \cdot (n_{sa}-1)!}{(j^{sa}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 &\quad \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\
 &\quad \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 &\quad \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 &\quad \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 &\quad \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\quad \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - j^{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j_s - 1)!} \cdot (l - 1)! \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + j_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(n_i-j_s+1)} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=j_{sa}+2)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)! (j_{sa} + j_{sa} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l+1)} \sum_{(j_s=2)}^{(j_s=2)}$$

$$\sum_{(j_s=2)}^{(l+1)} \sum_{(j_s=2)}^{(l+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(n)} \sum_{(j_{sa}=l_{ik}+j_{sa}^{ik}-j_{sa}^{ik}+2)}^{(n_i-j_s+1)}$$

$$\sum_{n_i=n+l_k}^{(n)} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{j_{ik}-l_{k_1}}^{(n)} \sum_{(n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_i-j_s+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

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$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) -$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \frac{(j_{sa} - l)!}{(j_{sa} + j_{sa}^{ik} - j_{sa} - l_{sa} - l_{ik} - j_{sa} - s - j_{sa}^{ik})!} \cdot \frac{(n_i - j_s + 1)!}{(n_i - l_{sa} - l_{ik} - j_{sa} - s - j_{sa}^{ik} - l_{sa} - l_{ik} - j_{sa} - s - j_{sa}^{ik})!} \cdot \frac{(n_i + j_{ik} - j_{sa} - j_s - s - j_{sa}^{ik} - l_{sa} - l_{ik} - j_{sa} - s - j_{sa}^{ik})!}{(n_i - l_{sa} - l_{ik} - j_{sa} - s - j_{sa}^{ik})! \cdot (n + l_{sa} + j_{sa} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_{sa} \leq n + j_{sa} - n \wedge$$

$$1 \leq j_s = j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S \Rightarrow j_s \cdot j_{ik} \cdot j^{sa} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l}^n \sum_{(n_i+j_s+1)}^{(n_i+j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{is}+j_s+1)}^{(n_{is}+j_s+1)}$$

$$\frac{(n_i - n_{is})}{(i_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - i_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{is} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

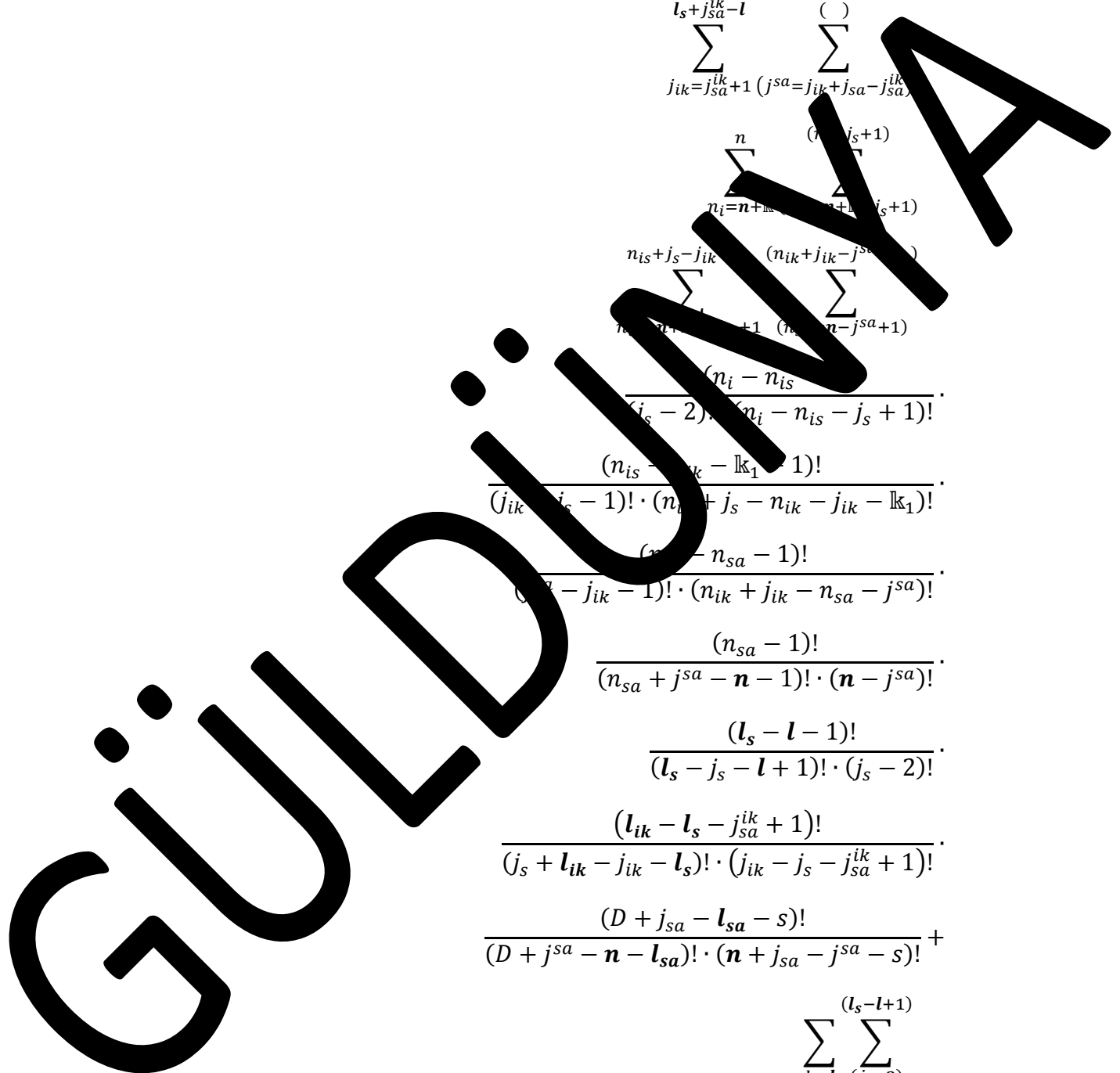
$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l-j_{sa}+1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$



$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} + j_{sa}^{ik} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(j_s-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(n_i-j_s+1)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - j_{sa}^i \wedge j_{sa}^s < j_{sa}^{ik} - j_{sa}^i$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s > 4 \wedge s = \dots + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_s)}^{(n_i-j_s+1)} (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (j_{sa} - j_s - l_{sa} + 1)!} +$$

$$\sum_{i=2}^{(j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik}=j_s+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{s=2}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}-l+1}^{l_{ik}-l+1} \sum_{j_{sa}=j_{sa}-j_{sa}^{ik}+1}^{(l_{sa}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=0}^n \sum_{n_{is}=n+l_k-j_s+1}^{(l_{ik}-l+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}+1}^{n_{is}+j_{ik}-l_{k1}} \sum_{(n_{ik}+j_{ik}-j^{sa}-l_{k2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k1} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k1})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

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$$\left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{sa}^{ik}-j_{sa}^{ik})}^{(\cdot)}$$

$$(n_i - \dots + 1)$$

$$\dots + \mathbb{k} (n_{is} = n + \mathbb{k} - 1)$$

$$(\cdot)$$

$$\dots = n_{is} + j_s - \dots - \mathbb{k}_1 (n_{sa} - \dots - j_{sa} - \mathbb{k}_2)$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!}$$

$$(D - l_i)!$$

$$\dots (D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!$$

$$D \geq n < n \wedge l \neq \dots \wedge l_{sa} \leq D + j_{sa} - n$$

$$1 \bullet j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j_{sa} + j_{sa}^{ik} - j_{sa}$$

$$\dots + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \dots + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > \dots + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_{zS \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j_{sa}^{ik})}^{n_{ik}+j_{ik}-l_{k_2}} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - 1)!} \\
 &\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \\
 &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \vee$

$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq (n + j_{sa} - s))$

$D \geq n < n \wedge l_{ik} - \mathbb{k}_1 > 0 \wedge$

$j_{sa} \geq l_{ik} - 1 \wedge j_{sa}^{ik} = l_{ik} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}_2, j_s, \dots, j_{sa}^i\} \wedge$

$s > j_{sa}^s = s + \mathbb{k}_1$

$\mathbb{k}_2: z = 2, \dots, l_{ik} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{\binom{()}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - j^{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa} - j^{sa} - 1)!}{(l_{ik} - j_{sa} - j^{sa} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa} - j^{sa} + 1)!}{(l_{ik} - j_{sa} - j^{sa} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +
 \end{aligned}$$

$$\begin{aligned}
 & \left(\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \right) \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_{sa}^{ik}, j_{sa}} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{(l_s + j_{sa} - l)} \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = l_{sa} + n - D)}^{(n_i - j_s + 1)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

GÜLDÜNYA

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=0}^{(l_s - l + 1)} \sum_{j_s=2}^{(j_s - 1)} \sum_{a=l_s + j_{sa} - l + 1}^{(j_s + 1)} \sum_{i_s=n + k}^{(n_{is} = n + k - j_s + 1)} \sum_{i_{ik}=n - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \sum_{n_{sa}=n - j^{sa} + 1}^{(n_{sa} = n - j^{sa} + 1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
 \end{aligned}$$

GÜLDENMYA

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{sa}+n-1)}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(\cdot)} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa})}^{(\cdot)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l)!}{(D - l + s - l_i - j_s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l_s \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} \wedge j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + l_s - n < l_{sa} - D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$l_{k_2}: z = 2 \wedge k = l_{k_1} + l_{k_2} \Rightarrow$$

$$\begin{aligned}
 f_{zS \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=n-j^{sa})}^{n_{ik}+j_{ik}-j^{sa}-k_2} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 &\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 &\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDENYA

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa}^{ik} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$l_s \geq n - l_i \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{\Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_s+n-D)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}+1)}^{(n_{is}+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{sa}+1)}^{(n_{sa}+1)}$$

$$\frac{(n_i - n_{is} - 2)! \cdot (n_i - n_{is} - j_s + 1)!}{(n_{is} - \mathbb{k} - \mathbb{k}_1 - 1)!} \cdot \frac{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}{(n_{is} - n_{sa} - 1)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - j^{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right) \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

GÜLDÜŞMÜŞ

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = 2)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = l_s + j_{sa} - l + 1)}^{(l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}
 \end{aligned}$$

GÜLDÜMÜN

A

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l+1)} \sum_{(j_s=2)}^{(j_s=2)}$$

$$\sum_{(n_i=l_{ik}+n_{is})}^{(n_i=l_{ik}+n_{is})} \sum_{(j_{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2)}^{(j_{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

GÜLDÜMÜYA

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \frac{(l_s - l - 1)!}{(n_i - j_s + 1)!} \cdot \frac{(n_i - l_{k_1} - l_{k_2} + k - j_s + 1)!}{(n_{sa} - l_{ik} + j_{ik} - j_{sa} - l_{k_2})!} \cdot \frac{(n_i + j_{ik} - j_{sa} - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - l_{k_1} - l_{k_2} - l_{k_1} - l_{k_2})! \cdot (n + l_{k_1} + j_{sa} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

- $((D \geq n < n \wedge l_{sa} \leq l \wedge l_s \leq D - n + 1 \wedge$
- $D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 2 \leq l \leq l - 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{ik} = j_{sa}^{sa} - j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$
- $D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$
- $(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$
- $D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 2 \leq l \leq l - 1 \wedge$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

GÜLDÜNYA

$$S \Rightarrow j_s, j_{ik} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{k-l+1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{l=1}^{j_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s+l} \sum_{j_{ik}=j_s+l_{sa}^{ik}-j_{sa}}^{j_{ik}-j_s} \sum_{j^{sa}=l_{sa}+n-D}^{j^{sa}+j_{sa}-l} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{j_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()} \frac{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D - n < l_i \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_s - n - l_{sa} + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa}^{l-s-l+1}$$

$$l_{sa} + j_{sa}^{ik} - l - j_{sa} + 1$$

$$= l_{sa} + n + \dots - D - j_{sa} - j_{sa}^{ik}$$

$$\sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_{sa}-\mathbb{k}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik})!} \cdot \frac{(j_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l)!}{(D + j_s + s - l_i - 1)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} > l_s \wedge l_{sa} \wedge j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_s - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}^{(\cdot)} \\
 &\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}^{ik})}^{n_{ik}-k_2} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - 1)!} \\
 &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 &\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fzS_{\Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j_s=2)}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{l_s-j_s+1}^{(l_s-l+1)}$$

$$\sum_{j_{ik} + j_{sa}^{ik} - 1}^{(j_{ik} + j_{sa}^{ik} - 1)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(n_{ik} = n_{is} + j_s - j_{ik} - k_1)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_{ik} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - l + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n_{sa} - l_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{-l+1} \sum_{(j_s=2)}^{-l+1} \sum_{\substack{j_{sa}^{ik} = l+1 \\ (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}}^{l_{ik} - l + 1} \sum_{\substack{n \\ n_i = n + \mathbb{k} \\ (n_{is} = n + \mathbb{k} - j_s + 1)}}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left(\sum_{k=l}^{(l_{sa} + n - D - j_s)} \sum_{(j_s=2)}^{(n_i - j_s + 1)} \right. \\
 & \sum_{j_{ik}=l_{ik} - D}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j_s=2)}^{(n_i - j_s + 1)} \sum_{(j_s=2)}^{(n_i - j_s + 1)} \\
 & \sum_{(j_s=2)}^{(n_i - j_s + 1)} \sum_{(j_s=2)}^{(n_i - j_s + 1)} \sum_{(j_s=2)}^{(n_i - j_s + 1)} \\
 & \sum_{(j_s=2)}^{(n_i - j_s + 1)} \sum_{(j_s=2)}^{(n_i - j_s + 1)} \sum_{(j_s=2)}^{(n_i - j_s + 1)} \\
 & \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \right) \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{sa}=n-j_{sa}^{ik})}^{(n_{sa}-j_{sa}^{ik})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - j^{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} + l_{k_1} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{ik} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
 \end{aligned}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(n_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{ik} - l_{ik})! \cdot (j_s + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) \cdot \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
 & \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{l_s + j_{sa}^{ik} - l} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} + \\
 & \sum_{j_{ik}=j_s}^{l_{ik}-j_{sa}} \sum_{j_{sa}=l_s+j_{sa}-l+1}^{l_s-l+1} \sum_{j_s=2}^{l_s-l+1} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_k-1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_k-2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa} \ (j^{sa}=l_{ik}+n+1-D-j_{sa}^{ik})}^{(l_s+j_{sa}-l)} \sum_{(n_i=j_{ik}+1)}^{(n_i+j_{sa}-1)} \sum_{(n+l_k \ (n_{is}=n+l_k+1))}^{(n)} \sum_{(n=n_{is}+j_{sa}^{ik}-l_{k_1} \ (n_{sa}^{ik}=n_{is}+j_{sa}^{ik}-l_{k_2}))}^{(\cdot)} \frac{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n - 1 \wedge$$

$$l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} = j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} = j_{sa} \wedge n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_{ik}+n+s-D-j_{sa}^{ik})}^{(n-j_s+1)} \\
 &\sum_{n_i=n+1}^n \sum_{(n_i+j_s+1)}^{(n_i+j_s+1)} \\
 &\sum_{(n_i+j_s-j_{ik})}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_i-n-j^{sa}+1)}^{(n_i-n-j^{sa}+1)} \\
 &\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 &\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 &\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{()}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_j)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - l)}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{ik} - n < l_{ik} \wedge D + l_s + j_{sa}^{ik} - j_{sa} - 1$$

$$D > n < n \wedge \mathbb{k} > 0$$

$$j_{sa} < j_{sa}^l - 1 \wedge j_{sa}^b < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = \mathbb{k} \wedge$$

$$\mathbb{k}_2 = \mathbb{k} - \mathbb{k}_1 \Rightarrow$$

$$f_{zS \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_s=2)}^{(\quad)} (j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})$$

$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} + j_s - n - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{ik} - j_{sa} - j_{sa}^{ik} + 1)!}{(n_{sa} + j_s - n - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{l=1}^{j_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s}$$

$$\sum_{j_{sa}^{ik}=l}^{l_s} \sum_{j_{sa}^{ik}=j_{ik}+n-D}^{()} (j_{sa}^{ik}=j_{ik}+j_{sa}-j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} \wedge j_{sa}^s < j_{sa}^{ik} \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s > 4 \wedge s = s + \mathbb{k}$$

$$\mathbb{k} = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)} \right)$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}-l+1} \sum_{(j_s)}^{()} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l + 1)!}{(l_s - j_{ik} - l + 1)! \cdot (l_s - j_{sa} - l + 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - l + 1)! \cdot (j_{ik} - j_{sa} - j^{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{j_s=l}^{l_s-l+1} \sum_{j_{sa}=j_s+n-D-j_{sa}+1}^{l_s-l+1} \sum_{j_{ik}=j_s+j_{sa}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \left(\sum_{i=l}^{(l_s - n - D - j_{sa})} \sum_{j=2}^{(j_s - 2)} \right) \cdot \\
& \sum_{i=n-D}^{j^{sa} + j_{sa}^{ik} - 1} \sum_{i=l_{sa} + n - D}^{(l_{ik} + j_{sa} - 1)} \cdot \\
& \sum_{i=0}^n \sum_{i_1=0}^{(n - i_1 - 1)} \cdot \\
& \sum_{n_i = i_1 + k}^{(n_i = n + k - j_s + 1)} \cdot \\
& \sum_{n_{is} = j_{ik} - k_1}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \cdot \\
& \sum_{n_{ik} = n - j_{ik} + 1}^{(n_{sa} = n - j^{sa} + 1)} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
\end{aligned}$$

$$\begin{aligned}
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{ik}+j_s-l-j_{sa}^{ik}+2)}^{(l_{sa}-l+1)} \\
 & \sum_{k_1=0}^n \sum_{k_2=0}^{(n_{is}-k_1+1)} \sum_{k_3=0}^{(n_{is}-k_1-k_2+1)} \sum_{k_4=0}^{(n_{is}-k_1-k_2-k_3+1)} \\
 & \frac{(n_{is} + j_s - j_{ik} - k_1 - k_2 - k_3 - k_4)! \cdot (n_{ik} + j_{ik} - j^{sa} - k_1)!}{(j_{ik} - j_s - k_1 - k_2 - k_3 - k_4)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - k_1 - k_2 - k_3 - k_4 - 1)!}{(j_{ik} - j_s - k_1 - k_2 - k_3 - k_4 - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - k_2 - j_{ik} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \sum_{(n_{sa}=j^{sa}+1)}^{(n_{sa}-j^{sa}+1)} \\
 & \frac{(n_i-1)}{(j_s-2)(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)(n_{is}-n_{ik}-j_{ik}-k_1)!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)!(n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)!(n-j^{sa})!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)!(j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-l_s)!(j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})!(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!} \right) - \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + j_{sa}^{ik} + j_{sa} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z : z = 1 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{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)}^{(\)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_{ik} + n - D - j_{sa}^{ik})} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}^{ik}+1}^{(j_s - j_{ik} - l_s + 1)} \\
& \sum_{j_{ik} = j_{sa}^{ik} - 1}^{l_{ik} - j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(j_s - j_{ik} - l_s + 1)} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_{sa}=j_s-j_{sa}^{ik})} \sum_{(n_i=j_s+1)}^{(n_i=j_s+1)}$$

$$\sum_{(n+l_{ik}(n_{is}=n+l_{ik}+1))}^{(n+l_{ik}(n_{is}=n+l_{ik}+1))}$$

$$\sum_{(n=n_{is}+j_s-l_{k_1}(n_{sa}=n_{is}-j_s-l_{k_2}))}^{(n=n_{is}+j_s-l_{k_1}(n_{sa}=n_{is}-j_s-l_{k_2}))}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - s - l_{k_1} - l_{k_2})!}{(n_i - n_{is} - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n \wedge l \wedge$$

$$l_s + j_{sa}^{ik} - n - l_{ik} \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} = j_s - j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} = j_s - n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \\
 &\sum_{n_i=n}^n \sum_{(n_i=j_s+1)}^{(n_i=j_s+1)} \\
 &\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \\
 &\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_s-l+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_j)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - l)}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik}$$

$$l_{sa} > D + l_{ik} + j_{sa} - n - j_{sa}^{ik}$$

$$D \geq n < n \wedge l = 1 \geq 0 \wedge$$

$$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_s\}$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - l_{sa} - j_{sa}^{ik} - l_{ik} - j_{sa})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n \wedge l \neq i \wedge l_s \leq D - n +$

$1 \leq j_s \leq j_{ik} - j_{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$

$l_{ik} - j_{ik} + 1 > j_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$l_{sa} > D + j_{sa} - n - j_{sa}^{ik} \wedge$

$l_{sa} \geq n - l_{sa} \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=1}^n \sum_{(n_i=n+j_s+1)}^{(n-j_s+1)}$$

$$\sum_{i=1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{i=1}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - j_s + 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 + 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

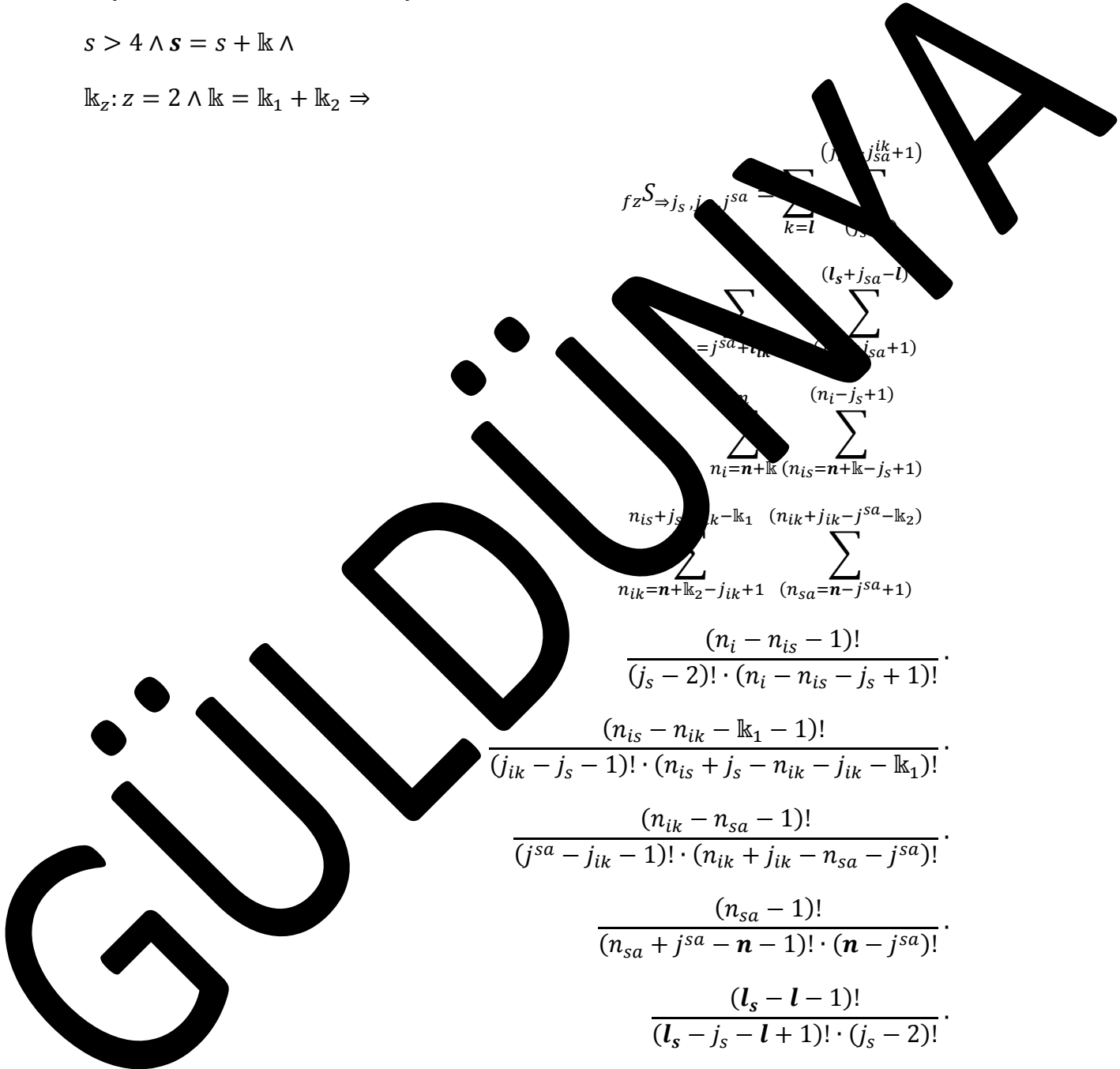
$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$



$$f_z^S \Rightarrow j_s, i, j_{sa} - \sum_{k=l}^{(j_{sa}^{ik}+1)} \dots$$

$$\sum_{i=j_{sa}^l}^{(l_s+j_{sa}-l)} \dots$$

$$\sum_{i=j_{sa}^l}^{(n_i-j_s+1)} \dots$$

$$\sum_{n_i=n+k}^{(n_i=n+k-j_s+1)} \dots$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \dots$$

$$\sum_{(n_{sa}=n-j_{sa}+1)} \dots$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_{ik} - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_i \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + 1$

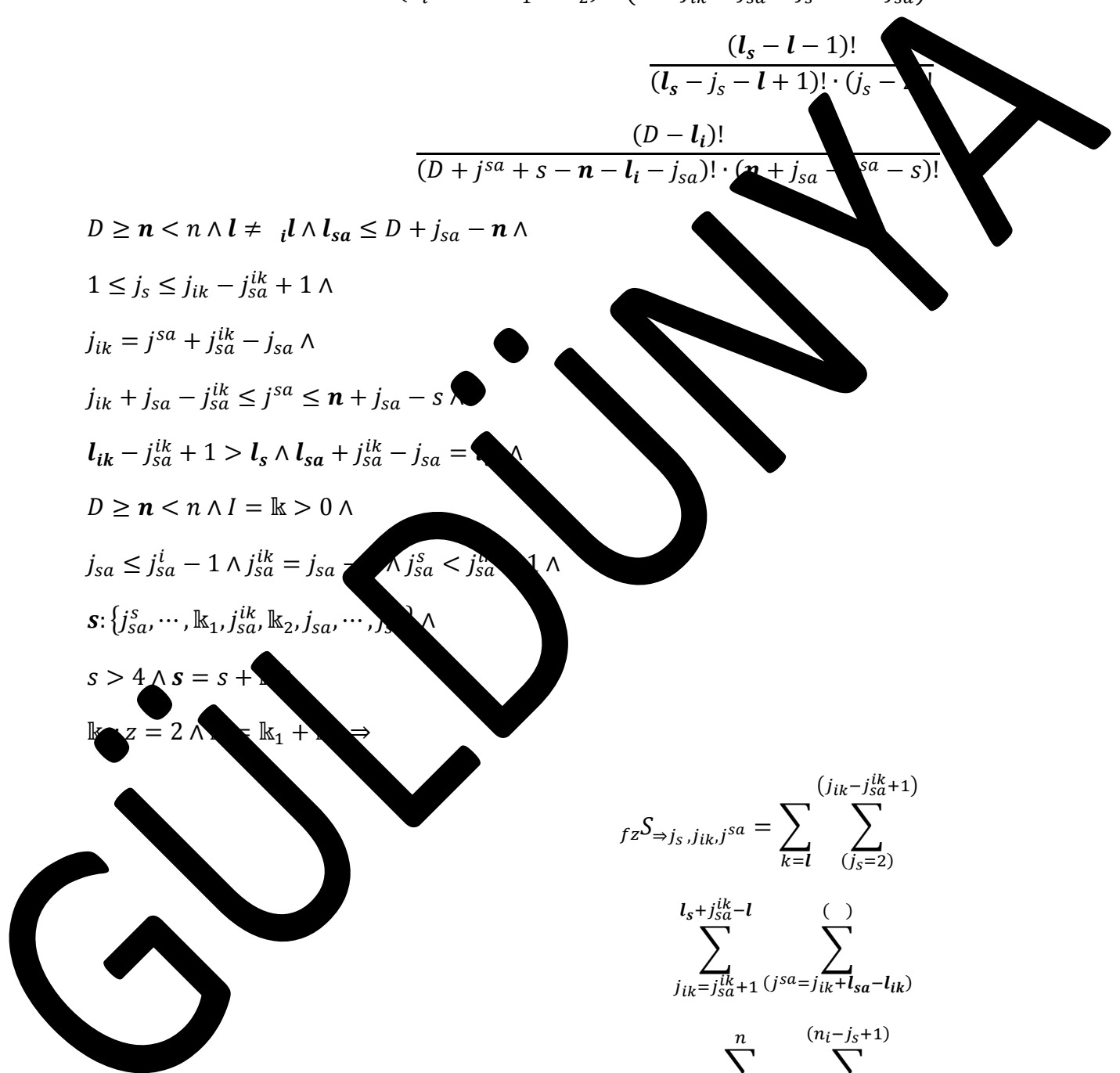
$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{\binom{(\cdot)}{j^{sa}=j_{ik}+l_{sa}-l_{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} (n_{is}=n+\mathbb{k}-j_s+1)$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$



$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s + j_{sa}^{ik} - l + 1}^{(l_{sa} - j_{sa} - l - j_{sa} + 1)} \sum_{(j^{sa}=j_{ik} + l_{sa} - l_{ik})} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!}
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \sum_{k=l}^{(\cdot)} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{(\cdot)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s-k-l} \sum_{j_{sa}^{ik}=j_{ik}+l_{sa}-l_{ik}}^{(\cdot)} \sum_{n_i=0}^n \sum_{n_{is}=n+k-j_s+1}^{(\cdot)} \sum_{n_{is}+j_s-j_{ik}-k_1}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-k_2}^{(\cdot)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \leq D + j_{sa} - n \wedge$$

$$1 \leq j_{ik} - j_{sa} \wedge$$

$$j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(n_i=j_{ik}+j_{sa}-l_{ik})}^{(n_i-j_s)}$$

$$\sum_{n_i=n+k_1}^{(n_i-j_s)}$$

$$\sum_{n_{is}=n+k_2-j_{ik}}^{(n_{is}-k_2)}$$

$$\sum_{(n_{sa}=n-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+lk}^n \sum_{(n_{is}=n+lk-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-lk_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-lk_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa} - lk_1)!}{(n_i - n - lk_1 - lk_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa} - lk_1)!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - n)!}{(D + j_{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} < n + j_{sa} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = lk > 0$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, lk_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + lk \wedge$$

$$lk_z: z = 2 \wedge lk = lk_1 + lk_2 \Rightarrow$$

$$fz^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \\
 & \frac{(n_{is}-n_{sa}-1)!}{(j^{sa}-j_{sa}-1)! \cdot (n_{is}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - j_{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
 & \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = l_{sa} + n - D)}^{(l_s + j_{sa} - l)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\cdot)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f^z = f^z(i_s, j_{ik}, j^{sa}) = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_i)!} \sum_{k=l}^{()} \sum_{j_s=j_{ik}^{()}}^{()} \sum_{j_{sa}=j_{sa}^{()}}^{()} \sum_{j_{ik}=j_{ik}^{()}}^{()} \sum_{n_{is}=n+l_k-j_s+1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{()} \frac{(n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

- $l_s \geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$
- $2 \leq l < D + l_s \wedge n - l_{sa} \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{sa} = j^{sa} - j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$
- $D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$
- $D \geq n < n \wedge l = k > 0 \wedge$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{sa}=j_{ik}+l_{sa})}^{(n)} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \binom{(\quad)}{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-l_{k_1})!} \\
 & \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{sa}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \cdot \sum_{k=l}^{\quad} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \binom{(\quad)}{(\quad)} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \binom{(\quad)}{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + j_{sa} - n - l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$$

$$fz S_{\Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} + l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(\)} \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} - l} \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)}^{(\)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l} \sum_{(j_s=2)}^{(l_{sa}+n-D-j_{sa})}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}=j_{ik}+k}^{(n-j_{sa}+1)} \sum_{j_{ik}=j_{sa}^{ik}-1}^{(n+j_{sa}-l_{sa}+1)} \sum_{n_{is}=n+k}^n \sum_{n_{sa}=n-j_{sa}+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_{sa}-l_{ik})}^{()}$$

$$\sum_{i=n+k}^n \sum_{(n_i=n-k+1)}^{(n_i+1)}$$

$$\sum_{n_i=n_{is}+j_{sa}^{ik}-k_1}^{()} \sum_{(n_i+1)}^{()} \sum_{(j^{sa}-k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq D - n - 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} - 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq i_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} = j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} - s + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - l_{sa} < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{\mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n_{is}+j_{ik}-j_{sa}+1}^n \sum_{(n_{ik}+j_{ik}-j_{sa})}^{(n_{is}+j_s-j_{ik})}$$

$$\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l_{k_1} - l_{k_2})! \cdot (l - 2)!}$$

$$\frac{(D - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - l_{sa} - j^{sa} - l_{k_1})!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - l_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{ik} - n < l_{ik} \wedge D + l_s + j_{sa}^{ik} - j_{sa} - 1$$

$$D > n < n \wedge l = l_k > 0$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = l_{k_1} \wedge$$

$$l_{k_2} = l_{k_1} \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_{zS \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa} + 1)!}$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} - j^{sa} - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(D + j^{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j^{sa} - j^{sa} - s)!}$$

$$\sum_{j_{ik}=1}^{\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq i l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}^{ik}=j_{sa}-l-j_{sa}^{ik}+1}^{j_{sa}^{ik}} f_z(j_{sa}^{ik}, j_{sa}^{ik}, j_{sa}^{ik}) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+l_{ik}}^{j_{sa}^{ik}} \sum_{j_{sa}^{ik}=(j_{sa}^{ik}+l_{ik}+n+s-D-j_{sa}^{ik})}^{j_{sa}^{ik}} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}^{ik}+1)}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \sum_{(l_s+j_{sa})}^{()} \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(j_{sa}=l_{ik}+j_{sa}^{ik})} \sum_{(n_i-j_s+1)}^{()} \sum_{(n_{ik}+l_{ik}-j_s+1)}^{()} \sum_{n_{ik}=n_{is}+j_{sa}-l_{sa}-l_{k_1}}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i + j_{ik} - j_{sa}^s - j_s - l_{k_1} - l_{k_2} - j_{sa}^{ik})!}{(l_i - n_{ik} - l_{k_1} - l_{k_2} - 1)! \cdot (n + l_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

- $D \geq n < n \wedge l \neq 1 \wedge l_s \leq n - 1 \wedge$
- $2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$
- $j_{ik} - j_s + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - n \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$
- $D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$
- $D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$
- $j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=l} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{ik}+j_{sa}^{ik}-l_{ik})}^{(n_i-j_s)}$$

$$\sum_{n_i=n+\mathbb{k}}^{(n_i-j_s)}$$

$$\sum_{n_{is}=n_{is}+j_{ik}-\mathbb{k}_1}^{(n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)}$$

$$\sum_{n_{sa}=n+\mathbb{k}_2-j_{ik}}^{(n_{sa}=n-j_{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=l} \sum_{(j_s=2)}^{(l_s-l+1)}$$

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$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \binom{(\quad)}{j_{sa}=j_{ik}+l_{sa}-l_{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_1})}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_1})}$$

$$\frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-l_{k_1})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j_{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)!(n-j_{sa})!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)!(j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{sa}-l_{ik}-j_{ik}-l_s)!(j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})!(n+j_{sa}-j_{sa}-s)!}$$

$$\sum_{k=l}^{\quad} \binom{(\quad)}{j_s=j_{ik}-j_{sa}^{ik}+1}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \binom{(\quad)}{j_{sa}=j_{ik}+l_{sa}-l_{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \binom{(\quad)}{n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - 1)!}$$

$D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$

$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq i l - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - j_{sa}^s < j_{sa}^s - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^l\} \wedge$

$s > 4 \wedge s = s + 1 \wedge$

$\mathbb{k} : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} ()$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - 1)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa} + 1)}^{(\cdot)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{l_s + j_{sa} - l} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{sa}^{ik}} = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{()} \sum_{j_{ik}=l_{ik}+n-D}^{(ik-l+1)} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l_s}^{(l_s - l + 1)} \frac{(l_s - k - 1)!}{(l_s - k - j_s - 1)! \cdot (j_s - k)!} \cdot \\
 & \sum_{i_s=0}^{l_{ik} - 1} \frac{(l_{ik} - i_s - 1)!}{(i_s + j_{sa}^{ik} - 1)! \cdot (j_{ik} + l_{sa} - l_{ik})!} \cdot \\
 & \sum_{n_{ik}=0}^{n_{is} + k} \frac{(n_{is} + k - 1)!}{(n_{is} + k - j_s + 1)!} \cdot \\
 & \sum_{n_{ik}=0}^{n_{is} + j_{ik} - k_1} \frac{(n_{ik} + j_{ik} - j^{sa} - k_2)!}{(n_{sa} - n - j^{sa} + 1)!} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{()} \sum_{(j^{sa}=j_{ik}+l_{sa}-l)}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{()} \sum_{(n_{ik}+j_{ik}-j^{sa}=n_{is}+j_s-j_{ik}-k_1)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(j_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(n - l_i)!}{(D + j_s - n - l_i)! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq n - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l_s \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa}^s \wedge$$

$$l_{ik} - j_{sa}^{ik} > l_s \wedge l_{sa}^{ik} - j_{sa}^{ik} = l_{ik} \wedge$$

$$D + j_s - n < l_{ik} = D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{sa}=n-j^{sa}-k_2)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l = i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_i \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + 1$

$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{l \binom{()}{j_s=1}}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{\binom{(l_{sa}-l+1)}{j^{sa}=j_{sa}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(n_i-j_{ik}-\mathbb{k}_1+1)}{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}} \sum_{\binom{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}{n_{sa}=n-j^{sa}+1}}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!}$$

$$\sum_{k=0}^{j_{sa}^{ik}} \binom{j_{sa}^{ik}}{k}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{j_{sa}^{ik}} \binom{j_{sa}^{ik}}{j_{ik}}$$

$$\sum_{n_i=n}^n \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{n_{ik}=n_i-j_{ik}+1} \sum_{k_1=0}^{k_2} \binom{k_2}{k_1}$$

$$\frac{(n_i - n - k_1 + j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$(n \geq n < n) \wedge (l_i \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$(l_{ik} - j_{sa}^{ik} + j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(n \wedge l_i = l_i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$$

$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

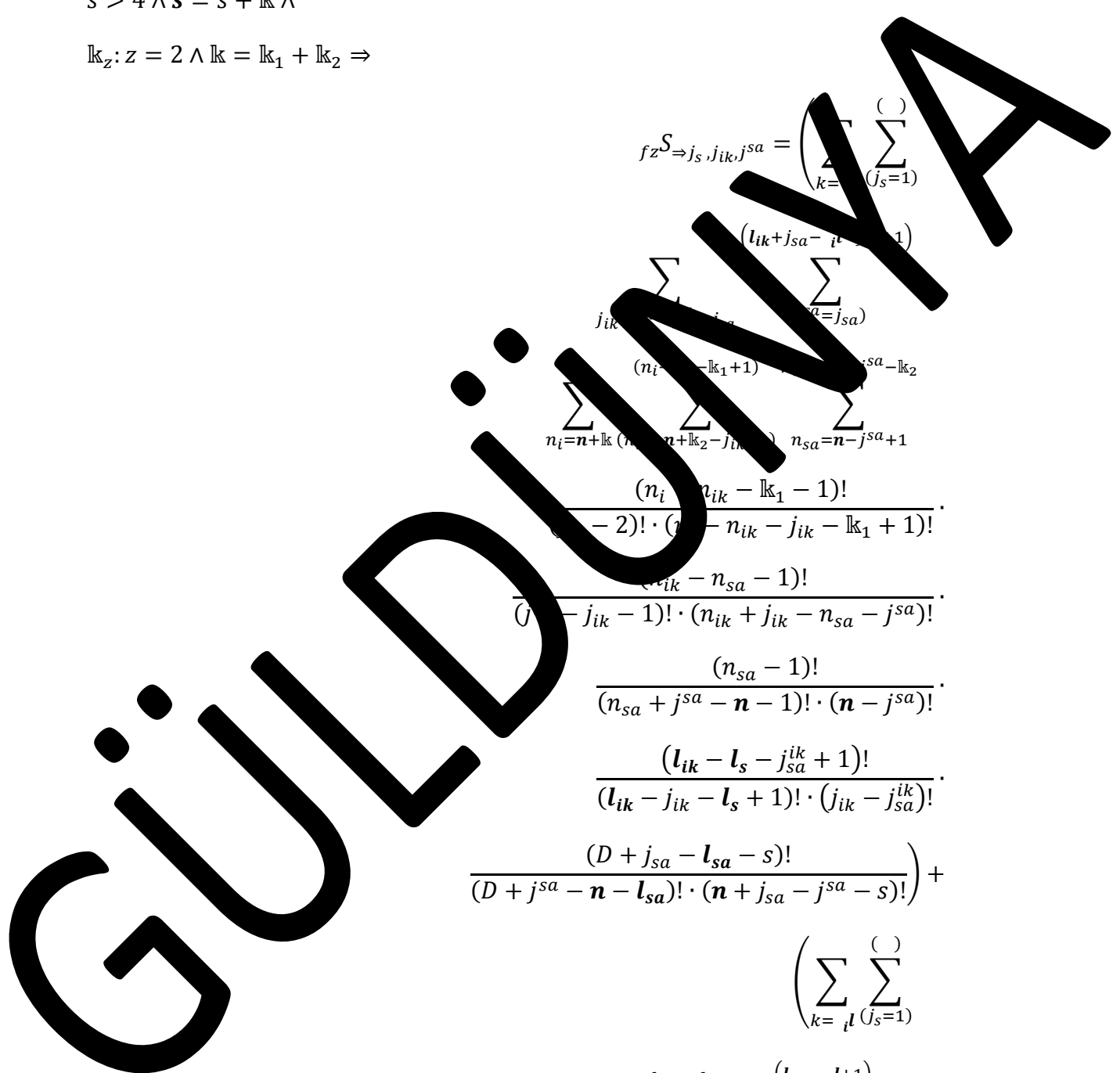
$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa} = \left(\sum_{k=1}^{\mathbb{k}} \sum_{(j_s=1)}^{(\quad)} \sum_{j_{ik} = j_{sa}^{ik}}^{(l_{ik} + j_{sa} - i^{l+1})} \sum_{n_i = n + \mathbb{k}}^{(n_i - \mathbb{k}_1 + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{(n_{sa} - \mathbb{k}_2)} \frac{(n_i - 2)! \cdot (n_{sa} - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left(\sum_{k=1}^{\mathbb{k}} \sum_{(j_s=1)}^{(\quad)} \sum_{j_{ik} = j_{sa}^{ik}}^{l_{ik} - i^{l+1}} \sum_{(j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(l_{sa} - i^{l+1})} \right)$$



$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa} - l_s)!} \cdot \\
 & \frac{(l_{sa} - l_s - j_{sa})!}{(j_{ik} + j_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{ik} - j_{sa})!} \cdot \\
 & \left(\frac{(D - j_{sa} - l_s - s)!}{(n + j^{sa} - n - l_s)! \cdot (n + j^{sa} - j^{sa} - s)!} \right) \cdot \\
 & \sum_{k=i}^{()} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j_{sa}=j_{sa})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$(D - n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l = l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$D \geq n < n \wedge l = l > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j^{sa} = \left(\sum_{k=i}^l \sum_{j_s=1}^{(\cdot)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2}$$

$$\frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - k_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\left(\sum_{k=i}^{(\cdot)} \sum_{j_s=1}^{(\cdot)} \right)$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i+1} \sum_{j_{sa}=n-D}^{(l_{sa}-i+1)}$$

$$\sum_{n_i=n+k}^n \sum_{n_{ik}=n+k_2+1}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}-k_2}^{(n_{ik}+j_{ik}-j_{sa}-k_2)}$$

$$\frac{(n_{ik}-k_1-1)!}{(j_{ik}-2)! \cdot (n_i-j_{ik}-k_1+1)!}$$

$$\frac{(n_{ik}-j_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(l_{ik}-j_{ik}-l_s+1)! \cdot (j_{ik}-j_{sa}^{ik})!}$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{sa}^{ik}-j_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=i}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=n+k}^n \sum_{n_{ik}=n_i-j_{ik}-k_1+1}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \mathcal{S} \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=i}^{\binom{()}{l}} \sum_{(j_s=1)}^{\binom{()}{l}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-i^{l-j_{sa}+1}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{l}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^n \sum_{j_s=1}^{(j_{ik} - j_{sa}^{ik})} \frac{\sum_{j_{ik}=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{j_{sa}=1}^{(j_{sa} - l_{sa})} \frac{\sum_{n+l_k=n+l_k}^n \sum_{n+l_k=n+l_k}^n \sum_{n+l_k=n+l_k}^n \frac{(n_i - n - l_{k_1} - l_{k_2})! \cdot (j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!}}{(D - l_i)! \cdot (D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = l \wedge l_s = D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa}^{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{sa} \leq j_{sa}^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D - l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = l_k > l \wedge$$

$$j_{sa}^{sa} = j_{sa}^{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{sa}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_{zS \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=1}^n \sum_{j_s=1}^{(j_{ik} - j_{sa}^{ik})}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \binom{l_{sa}-i+1}{j_{sa}=l_{sa}+n-D} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
 & \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - l_{k_2} - 1)! \cdot (j_{sa})!} \\
 & \frac{(n_i - 1)!}{(n_i + j^{sa} - n - l_{sa} - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(j_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_{ik} - l_{k_1} + 1)! \cdot (j_{ik} - j_{sa})!} \\
 & \frac{(D + n_i - l_{sa} - 1)!}{(D + n_i + j^{sa} - n - l_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 & \sum_{k=i}^l \sum_{j_s=1}^{(\cdot)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{j^{sa}=j_{sa}}^{(\cdot)} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n_i-j_{ik}-l_{k_1}+1}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{(\cdot)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{k=1}^{(\cdot)} \sum_{(j_s=1)}^{(\cdot)} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-l-j_{sa}}^{(\cdot)} \sum_{j_{sa}=n-j_{sa}^{ik}+1}^{(\cdot)} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} - \sum_{k=1}^{(\cdot)} \sum_{(j_s=1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_{ik})!}{(D + s - n - \mathbb{k}_1 - \mathbb{k}_2)! (n - s)!}$$

$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_{sa} - j_{sa} - n + 1 \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^i < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + 1 \wedge$

$\mathbb{k}_2: 2 \leq \mathbb{k}_2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_{Z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+j_{sa}-i-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} - 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (n_{ik} + j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_{sa})!} \cdot \sum_{j_s=1}^{(n)} \sum_{j_{ik}=j_{sa}^{ik}}^{(n)} \sum_{j_{sa}=j_{sa}}^{(n)} \sum_{n_i=n_{ik} - \mathbb{k}_1}^{(n)} \sum_{n_{sa}=n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}^{(n)} \frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - j_{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n \wedge n \wedge l = i \wedge l \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1$$

$$j_{ik} + j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}}^S = \sum_{k=l}^{(\quad)} \sum_{j_s=1}^{(\quad)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}} \sum_{j_{sa}=1}^{(n_{sa}-n_{sa}-1)}$$

$$\frac{(j_{ik}-1)! \cdot (n_i-j_{ik}-\mathbb{k}_1+1)!}{(n_{sa}-n_{sa}-1)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(l_{ik}-j_{ik}-l_s+1)! \cdot (j_{ik}-j_{sa}^{ik})!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!}$$

$$\sum_{k=l}^{(\quad)} \sum_{j_s=1}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{j_{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{(\quad)}$$

$$\frac{(n_i+j_{ik}+j_{sa}^s-j_s-s-j_{sa}^{ik}-\mathbb{k}_1-\mathbb{k}_2)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_{ik}+j_{sa}^s-j_s-s-j_{sa}^{ik})!}$$

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$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = {}_i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^{j_{sa}, j_{ik}, j_{sa}} = \sum_{k=l}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}+l_{ik}-l_{sa}}^{(l_{sa}-l+1)} \sum_{j_{sa}=j_{sa}}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{n_{ik}=n+k_2-j_{ik}+1}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-k_2}$$

$$\frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - k_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=i}^{\binom{()}{l}} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k_2})}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{l_{k_1}} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{l_{k_1}})! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l = i l \wedge l_{sa} \leq D + j_{sa} \wedge n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{l_{k_1}} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = i l > 0 \wedge$$

$$j_s \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_s - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{l_{k_1}}, \dots, j_{sa}, \dots, i\} \wedge$$

$$s > 4 \wedge s = s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_{k_z} = l_{k_1} + 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=i}^{\binom{()}{l}} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-i-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \binom{()}{j_s}$$

$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - l_s - \mathbb{k}_1)!} \cdot \\
 & \frac{(l_s - j_{sa} - s - 1)!}{(l_s + j_{sa} - n - 1)! \cdot (l_s - j_{sa} - s)!} \cdot \\
 & \sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j^{sa}=j_{sa})}^{()} \\
 & \sum_{n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$D - n < l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{sa}^{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S \Rightarrow j_s, j_{ik}, j^{sa} = \sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{(l_{sa}=1)}^{()} \sum_{(a=l_{sa}+n-D)}^{()} \sum_{(n_i=n+\mathbb{k})}^{()} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{(n_{sa}=n-j^{sa}+1)}^{()} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(n_i - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()}$$



$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$f_{zS \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{\binom{()}{l}} \sum_{j_s=1}^{\binom{()}{l}}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-i-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{\binom{()}{l}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^n \sum_{j_s=1}^{(j_{ik} - j_{sa}^{ik})} \frac{\sum_{j_{ik}=j_s}^{(j_{ik} - j_{sa}^{ik})} \sum_{j_{sa}=j_s}^{(j_{ik} - j_{sa}^{ik})} \frac{\sum_{n+l_k}^n (n_{ik}=n_{ik}-l_{k_1}-l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})!} \cdot \frac{(j_{ik} - j_{sa} - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(j_{ik} - j_{sa} - j_s - s - j_{sa}^{ik})!}}{(D - l_i)! \cdot (D + s - n - l_i)! \cdot (n - s)!}$$

$D \geq n < n \wedge l = l \wedge l_s = D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_s \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D - l_s + j_{sa}^{ik} - n - 1 \wedge$

$D \geq n < n \wedge l = l \wedge l_s = D - n + 1 \wedge$

$j_{sa}^{ik} \geq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + l \wedge$

$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=1}^n \sum_{j_s=1}^{(j_{ik} - j_{sa}^{ik})}$$

$$\sum_{j_{ik}=j_{sa}+l_{ik}-l_{sa}} \binom{l_{ik}+j_{sa}-i-l-j_{sa}+1}{j_{sa}=l_{ik}+n+s-D-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j_{sa}}^{n_{ik}+j_{ik}-j_{sa}-l_{k_2}}$$

$$\frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j_{sa})! \cdot j_{sa}!}$$

$$\frac{(n_i - 1)!}{(n_i + j_{sa} - n - l_{sa})! \cdot (n - j_{sa})!}$$

$$\frac{(n_{ik} - l_{sa} - j_{ik} - 1)!}{(n_{ik} - j_{ik} - l_{sa} + 1)! \cdot (j_{ik} - j_{sa})!}$$

$$\frac{(D + n_i - l_{sa} - 1)!}{(D + n_i + j_{sa} - n - l_{sa} - 1)! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{()} \sum_{j_s=1}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{j_{sa}^{sa}=j_{sa}}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_{ik}=n_i-j_{ik}-l_{k_1}+1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2}}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\sum_{k=l}^{()} \sum_{(j_s=1)}^{()} \sum_{j_{ik}^{sa} = j_{ik} + j_{sa}^{sa}} \sum_{j_{ik} = k + n - D}^{l_{ik} - 1} \sum_{(j_{sa} = j_{ik} + l_{sa} - l_{ik})} \sum_{i=n+k}^{(n_i - j_{ik} - k_1 + 1)} \sum_{(n_{ik} = n + k_2 - j_{ik} + 1)} \sum_{n_{sa} = n - j_{sa} + 1}^{n_{ik} + j_{ik} - j_{sa} - k_2} \frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - k_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \sum_{k=l}^{()} \sum_{(j_s=1)}^{()}$$

GÜLDENMYA

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_{sa}=j_{sa})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_k}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)}{(D + s - n - l_i)! (n - s)!}$$

GÜLDÜNYA

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z^S \Rightarrow j_s}^{j_{sa}^{ik}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

GÜLDÜNYA

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s - k + n - D)}^{(l_s - l + 1)} \cdot \\
 & \sum_{(j_{sa} + j_{sa}^{ik} - j_{sa})}^{(j_s - k + n - D)} \sum_{(a = l_s + j_{sa} - l + 1)}^{(l_s - l + 1)} \cdot \\
 & \sum_{(n_{is} = n + k - j_s + 1)}^{(j_s + 1)} \cdot \\
 & \sum_{(n_{ik} = n - j_{ik} - k_1)}^{(j_s + 1)} \sum_{(n_{sa} = n - j^{sa} - k_2)}^{(j_s + 1)} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
 \end{aligned}$$

GÜLDENMYA

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{sa}+n-1)}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(\cdot)} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa})}^{(\cdot)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa} - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l)!}{(D - l + s - l_i - j_s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n \wedge l_s > 0 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l_s < D - n + 1$$

$$2 \leq j_{sa} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} < n + j_{sa} - s \wedge$$

$$j_{ik} - j_{sa} - 1 > l_s \wedge l_{sa} \wedge j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l_s > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, l_{k_1}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{(l_s - l + 1)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{sa} - l + 1)} \sum_{(j^{sa} = l_{sa} + n - D)}^{(l_{sa} - l + 1)}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik}}^{n_{is} + j_s - j_{ik} - 1} \sum_{(n_{sa} = n - j^{sa} - k_2)}^{n_{is} + j_s - j_{ik} - 1 + j_{ik} - n_{sa} - k_2}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = l_{sa} + n - D)}^{(l_s + j_{sa} - l)}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

GÜLDENYA

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = \dots + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)} \right)$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{sa}+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDENKA

$$\begin{aligned}
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j_s - l_{sa})!} + \\
 & \frac{(j_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} - j_s - j_{sa}^{ik} + 1)!} \sum_{j_{ik} = n - D}^{n - D} \\
 & \sum_{j_{ik} = n - D}^{j^{sa} + j_{sa}^{ik} - 1} \sum_{(j_s = l_{sa} + n - D)}^{(l_s + j_{sa} - l)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜMÜYA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{s-l+1} \sum_{j_s=n-D}^{j_s=l+1} (j_s - k + 1)!$$

$$\sum_{l=n-D}^{j^{sa} + j_{sa}^{ik} - 1} \sum_{j_s=l+1}^{l_{ik} + j_{sa} - 1} (l_{ik} + j_{sa} - j_s + 1)!$$

$$\sum_{n_{is}=n}^n \sum_{k=1}^{n_{is} - j_s + 1} (n_{is} - n + k - j_s + 1)!$$

$$\sum_{n_{ik}=n_{is} - j_{ik} + 1}^{n_{is} + j_{ik} - k_1} (n_{ik} + j_{ik} - j^{sa} - k_2)!$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

GÜLDENMYA

$$\begin{aligned}
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} - l + 1} \sum_{(j^{sa} = l_{ik} + j_s - l - j_{sa}^{ik} + 2)}^{(l_{sa} - l + 1)} \\
 & \sum_{k_2 = n + k}^n \sum_{(n_{is} = n_{ik} + k_2 - j_{ik} - k_2 - j_{ik} - j_{sa}^{ik} + 1)}^{(n_{ik} - k_2 + 1)} \\
 & \frac{(n_{is} + j_s - j_{ik} - k_2 - j_{ik} - j_{sa}^{ik} + 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - k_2 - j_{ik} - j_{sa}^{ik} + 1)!}{(n_{is} - 1)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{ik} - k_2 - j_{ik} - j_{sa}^{ik} + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}{(n_{ik} - n_{sa} - k_2 - 1)! \cdot (j^{sa} - j_{sa}^{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()}
 \end{aligned}$$

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$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k_2})}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l + 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - \dots)!}{(D + j^{sa} + s - n - \dots - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

- $D \geq n < n \wedge l_s > D - n + 1 \wedge$
- $D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + \dots \leq D - \dots + 1 \wedge$
- $2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + \dots - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$
- $l_{k_1} - j_{sa}^{ik} + 1 \leq l_{k_1} \wedge l_{sa} - j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$
- $D \geq n < n \wedge l = \dots = 0 \wedge$
- $j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$
- $s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$
- $s > 4 \wedge j_{sa}^s = s + l_k \wedge$
- $l_{k_z}: z = 2, \dots, k = l_{k_1} + l_{k_2} \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-k_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-k_2)!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{sa}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \cdot \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜZ

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$

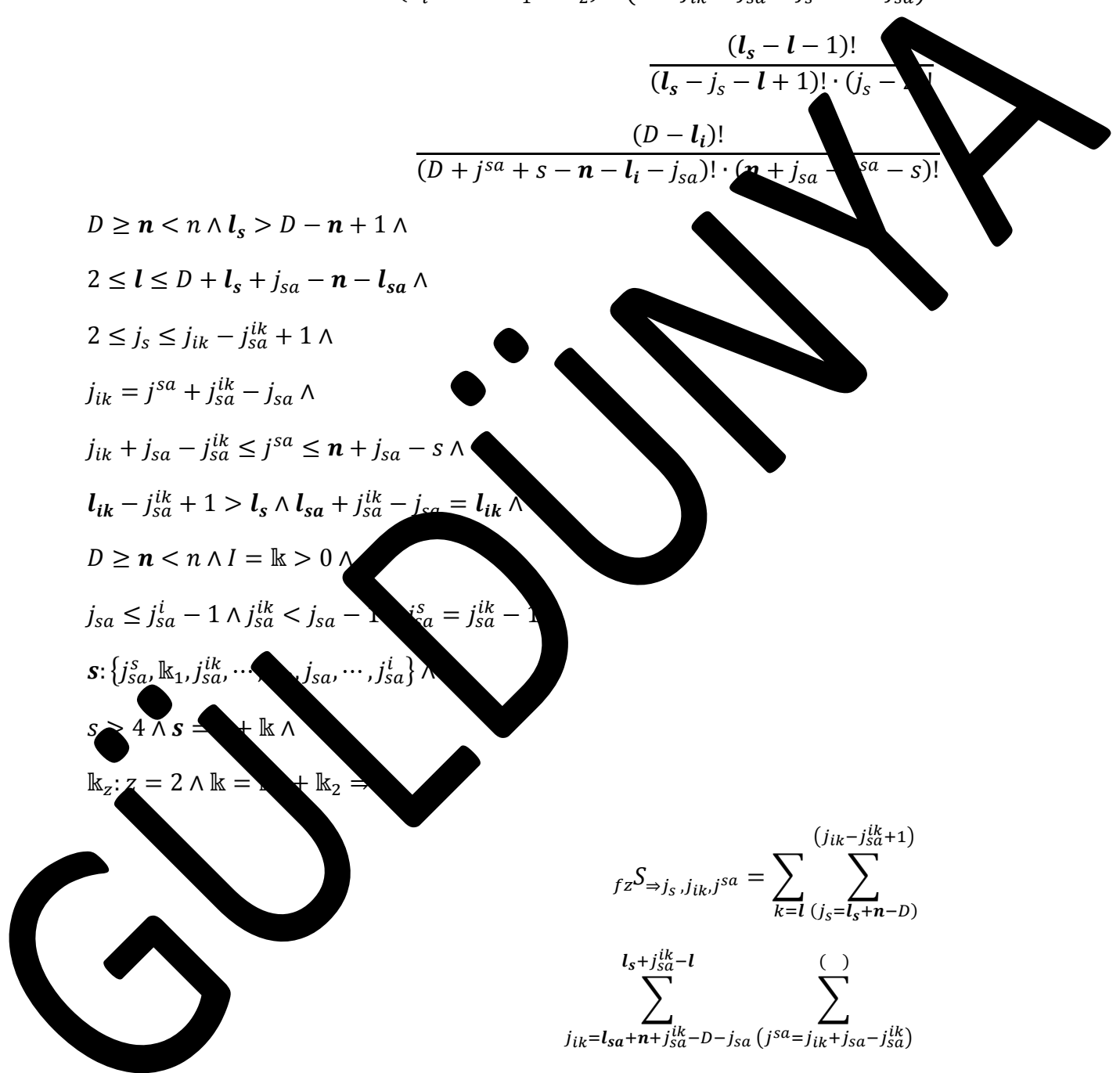
$s > 4 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$

$$fz^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{\binom{()}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$



$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜZMÜŞA

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} \cdot \sum_{j_{sa}^{ik} = 0}^{j_{sa}^{ik} + 1} \sum_{j_{sa}^{ik} = 0}^{j_{sa}^{ik} - l} \sum_{j_{ik} = l_{sa} + n + j_s}^{D - j_{sa}} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}) \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$l_s \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j^{sa} = \sum_{l=1}^n \sum_{(j_s=l_s+n-D)}^{(n-l)} \sum_{j_{ik}=l_{ik}+n+j_{sa}^{ik}-D}^{(n-l)} (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} (j^{sa}=j_{sa}-j_{sa}^{ik})$$

$$\sum_{n+l_k}^{(n_i+l_k+1)} (n_{is}=n+l_k+1)$$

$$\sum_{n+l_s}^{(n_{sa}-l_k)} (n_{sa}-l_k)$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - s - l_k - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$(D - l_i)!$$

$$(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!$$

$$D \geq n < n \wedge l_s > n + 1 \wedge$$

$$2 \leq l \leq D + j_{sa} - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$2 \leq i \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} < j_{sa} - l + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_{Z \Rightarrow j_s, j_{ik}, j^{sa}} &= \left(\sum_{k=l}^{(j_{ik} - j_{sa}^{lk} + 1)} \sum_{(j_s = l_s + n - D)} \right) \\
 &\sum_{j_{ik} = l_s + n + j_{sa}^{lk} - D - j_{sa}}^{l_s + j_{sa}^{lk} - l} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{lk})}^{()} \\
 &\sum_{n_i = n + k}^n \sum_{(n_{is} = n - j_s + 1)}^{(n - j_s + 1)} \\
 &\sum_{n_{is} + j_s - j_{sa} - k_1}^{(n_{is} - j_s + 1 - k_1)} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{sa} - j^{sa} + 1)} \\
 &\frac{(n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot \\
 &\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{sa} - j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{lk} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{lk} + 1)!} \cdot \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)} \\
 &\sum_{j_{ik} = l_s + j_{sa}^{lk} - l + 1}^{l_{ik} - l + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{lk})}^{()}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(j_s - l - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left(\sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{(n_i-j_s+1)} \right) \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - 1)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - 1)! \cdot (l_{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_s + n - D)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} - l + 1} \sum_{(j^{sa} = l_{ik} + j_{sa} - l - j_{sa}^{ik} + 2)}^{(l_{sa} - l + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜZ

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot \sum_{k=l}^{\infty} \sum_{j_{sa}=n-D-j_{sa}+1}^{\infty} \sum_{j_{ik}=l_{sa}+j_{sa}^{ik}-D}^{\infty} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{\infty} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

GÜLDÜNYA

$$\begin{aligned}
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik} = l_s + j_{sa}^{ik} - l + 1}^{l_{ik} - l + 1} \sum_{(j^{sa} = j_{sa}^{ik} - j_{ik} + 1)}^{(l_{sa} - 1)} \\
 & \sum_{n_{ik} = l_{sa} + k - j_{ik} + 1}^{n_{is} + j_{sa}^{ik} - k - l_{k_1}} \sum_{(n_{ik} = n_{sa} - k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} = n_{sa} - k_2 - j_{ik} + 1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -
 \end{aligned}$$

GÜLDÜZMÜŞA

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\cdot)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!}$$

$$\frac{(n_i - j_s - k_1 - k_2 - l - 1)!}{(n_i - j_s - k_1 - k_2 - 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l)!}{(D + j_s + s - l_i - k_1 - k_2)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + k_1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l_s = 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\{i_s, \dots, k_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_{Z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{(l_{sa}+n-D-j_{sa})} \\
 &\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{ik_1}} \sum_{(n_{sa}=n-j_{sa}^{sa}-k_2)}^{(n_{ik}-l_{ik_2})} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜZYA

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{(\cdot)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\cdot)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

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$$j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\begin{aligned}
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{l=1}^{(j_s - j_s - l + 1)} \sum_{j_s=j_{ik} - j_{sa}^{ik}}^{(j_s - j_s - l + 1)} \sum_{j_{ik}=n_{is} + j_s - j_{ik} - l_{k_1}}^{(j_s - j_s - l + 1)} \sum_{j_{sa}=n_{is} + j_{sa}^{ik} - j_{sa} - l_{k_2}}^{(j_s - j_s - l + 1)} \sum_{n_i=n+l_{k_1}}^{(n_i - j_s + 1)} \sum_{(n_{is}=n+l_{k_1} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{sa}=n_{ik} + j_{ik} - j^{sa} - l_{k_2})}^{(n_i - j_s + 1)} \\
& \frac{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$D - n > l_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D - l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}}^S = \left(\sum_{l=1}^{(l_s - n - D - j_{sa})} \sum_{(j_s = n - D)}^{(n - D - j_{sa})} \right)$$

$$\sum_{j_{ik}=l}^{l_{ik}-l+1} \sum_{(j_{ik}-D-j_{sa})}^{(j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{(n_{is}+l)}^{(n_{is}+l_{ik}+1)} \sum_{(n_{is}+l)}^{(n_{is}+l_{ik}+1)} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}=n-j_{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

GÜLDÜZÜMÜYA

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-j_{sa}^{ik}-j_{sa}^{sa}-j_{ik}^{sa}-k_2}^{n_{is}+j_s-j_{ik}-j_{sa}^{ik}-j_{sa}^{sa}-j_{ik}^{sa}-k_2} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}^{sa}-j_{sa}^{sa}}^{n_{ik}=n+k_2-j_{ik}^{sa}-j_{sa}^{sa}} \sum_{(n_{sa}=n-j_{sa}^{sa})}^{(n_{sa}=n-j_{sa}^{sa})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \\
 & \left(\sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{(l_{sa}+n-D-j_{sa})} \right. \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \\
 & \left. \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \right)
 \end{aligned}$$

GÜLDENYA

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} + l_{sa} - l_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - j_s - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (D + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{l_s-l+1} \sum_{j_s=l_{sa}+n-D-j_{sa}+1}^{l_s-l+1} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{(l_{sa}-l+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right)^{\sum_{k=l}^{l+1} \binom{n+l-k}{k} \binom{n+l-k}{n+l-k-j_{sa}+k}} \cdot \sum_{j_{ik}=j_s}^{n-k-1} \binom{n-j_s+1}{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \sum_{n_i=n+k}^n \binom{n_i-j_s+1}{n_i=n+k-j_s+1} \sum_{j_{ik}=n_i+j_s-j_{ik}-k_1} \binom{n}{n_{sa}=n_{ik}+j_{ik}-j_{sa}-k_2} \cdot \frac{(n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D - n < l_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D - l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa} = \sum_{k=l}^{\mathbb{k}-j_{sa}^{ik}+1} \sum_{(j_s=n-D)}^{(l_s+j_{sa})} \sum_{j_{ik}=j_{sa}^{ik}}^{j_{sa}} \sum_{(j_{sa}=l_{ik}+j_{sa}-D-j_{sa}^{ik})} \sum_{n_i=n_{ik}+1}^n \sum_{n_{is}=n_{ik}+1}^{n_{ik}+1} \sum_{n_{is}+j_{ik}-\mathbb{k}_1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \sum_{n_{ik}=n_{sa}-j_{ik}+1}^{n_{sa}} \sum_{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_2}^{(n_{is}+j_s-j_{ik}-k_2)} \sum_{(n_{sa}=n-j^{sa}+)}^{(n_{is}+j_s-j_{ik}-k_2)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}}^{(n_{ik}=n+k_2-j_{ik})} \sum_{(n_{sa}=n-j^{sa}+)}^{(n_{ik}=n+k_2-j_{ik})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

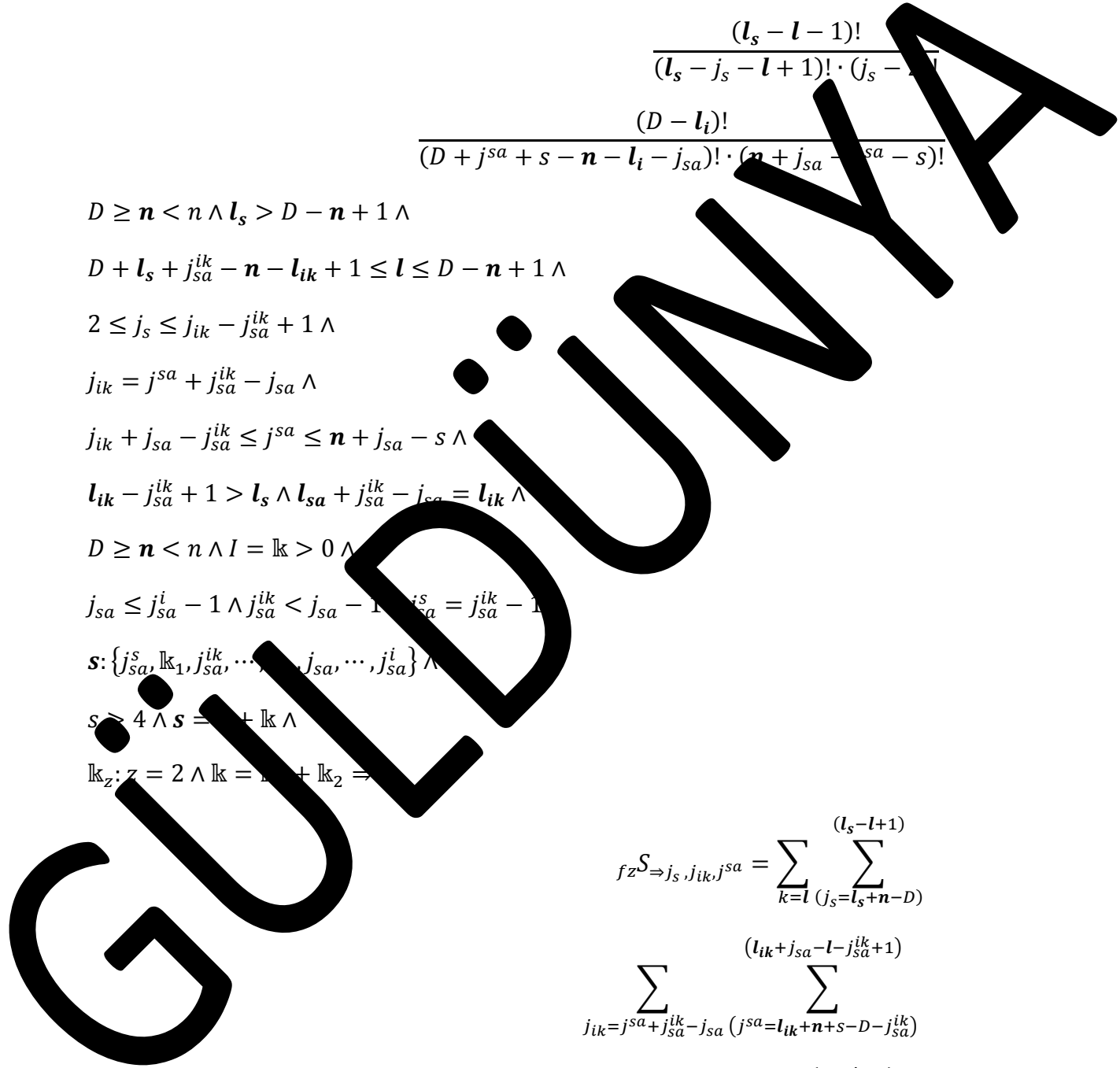
$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_{ik}+n+s-D-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$



$$\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} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_s)! \cdot (n_i - 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=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{ik}+\mathbf{n}+j_{sa}-D-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 - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$j_{sa}^{ik} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} ()$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik} = l_s + l - 1}^{(l_s - l + 1)} \sum_{(j^{sa} = j_{ik} - l_s - j_{sa}^{ik})}^{(l_s - l + 1)} \\
 & \sum_{n_i = n + k}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_i + 1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(j_{ik} - k_1)} \sum_{(n_{ik} + j_{ik} - j^{sa} - k_2)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!} \cdot \frac{(n_i - j_s + 1)!}{(n_i - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - 1)!}{(D + j_s + s - l_i - 1)! \cdot (n + j_{sa} - j_{sa}^s - s)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l_s < D - n + 1$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l_s = 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$\{s, \dots, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + k \wedge$

$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$

$$\begin{aligned}
 f_{z \mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{(l_s - l + 1)} \\
 &\sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} - l + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{ik}^{sa})}^{()} \\
 &\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 &\frac{n_{is} + j_s - j_{ik} - j_{sa} + j_{ik}^{sa} - k_2}{n_{ik} = n + k_2 - j_{ik}^{sa} - j_{sa} + j_{ik}^{sa} - k_2} \cdot \frac{(n_i - j_s + 1)}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 &\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \\
 &\sum_{j_{ik} = l_{ik} + n - D}^{l_s + j_{sa}^{ik} - l} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{()} \\
 &\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \binom{(\quad)}{\quad}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - l + 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(j_s - j_{sa}^{ik} + 1)} \sum_{j_{ik}=j_{sa}^{ik}-1}^{(j_{sa}^{ik}-1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j^{sa}-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(j^{sa}-j_{sa}^{ik})} \\
& \frac{(l_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$n_{ik} \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa}^{ik} = \sum_{l=j_s}^n \sum_{j_{sa}^{ik}=l}^{(n-l)} \sum_{j_{ik}=l_{ik}}^{(n-l)} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(n-l)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^n \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}^{(l_s - l + 1)} \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(j^{sa} = j_s + j_{sa}^{ik} - 1)} \sum_{(n_i = n - \mathbb{k}_1 - \mathbb{k}_2)}^{(n_i = n + \mathbb{k}_1 + 1)} \frac{(n_i + j_{ik} + j_{sa}^{i_s} - s - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^{i_s} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > n - n + 1 \wedge$

$2 \leq l \leq D + j_{sa} - l_{sa} \wedge$

$2 \leq i_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_s + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{i_s} < j^{sa} < j_s + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{i_s} + 1 > l_s \wedge l_{sa} + j_{sa}^{i_s} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} = j_s - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{i_s}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_{z^S \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_s+n-D)}^{(l_s+j_{sa}-l)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{is}+j_s-j_{ik}-l_{sa}-j_{sa}^{ik}+j_{ik}-l_{sa}-l_{sa}^{ik}}^{(n_{is}+j_s-j_{ik}-l_{sa}-j_{sa}^{ik}+j_{ik}-l_{sa}-l_{sa}^{ik})} \sum_{(n_{sa}=n-j^{sa})}^{(n_{sa}=n-j^{sa})} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 &\frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{sa}-l+1)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{sa}+n-D)}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} j_s, j_{ik}, j^{sa} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\ j_{ik}=j^{sa}+l_{ik}-l_{sa} & \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)} \\ \sum_{n_i=n+k}^n & \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} & \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \end{aligned}$$

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$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \sum_{l=1}^{(j_s + j_{sa} - l)} \sum_{j_{ik}=j_s+l}^{(l_{ik} - l_{sa} + j_{sa}^{sa} + n - D)} \sum_{n_i=n+l_k}^{(n_i - j_s + 1)} \sum_{(n_{is}=n+l_k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(j_{ik}=n_{is} + j_s - j_{ik} - k_1, n_{sa}=n_{ik} + j_{ik} - j^{sa} - k_2)}^{()} \frac{(j_s + j_{sa} - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n_{is} - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D > n \wedge n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D \wedge l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s = j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa} = \sum_{k=1}^{\mathbb{k}-j_{sa}^{ik}+1} \sum_{j_s=1}^{n-D} \sum_{j_{ik}=1}^{l_s+j_{sa}^{ik}-1} \sum_{j_{sa}=1}^{n-j_{ik}-j_{sa}} \sum_{n_{ik}=1}^n \sum_{n_{is}=1}^{\mathbb{k}} \sum_{n_{sa}=1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-k_2} \sum_{(n_{sa}=n-j^{sa}-k_2)}^{j_{ik}-k_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 & \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - l_{sa} - j^{sa} - l_{ik})!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - l_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = 1 > 0 \wedge$$

$$j_s \leq j_{sa}^l - j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^{ik}, \dots, j_{sa}^s\}$$

$$s > 4, l_s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} - j^{sa} - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^k - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$fz \Rightarrow j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}=j_{ik}+k}^{(n-j_{sa}+1)} \sum_{j_{ik}=j_{sa}^{ik}-1}^{(n+j_{sa}^{ik}-l_{sa}+1)} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{(n-j_s+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n-l+1)} \sum_{(j^{sa}=l_{sa}-l_{ik})}^{(n-l+1)}$$

$$\frac{(n-l+1)!}{(n+l_{ik}(n_{is}=n-l_{ik}+1))!}$$

$$\frac{(n_{is}=n_{is}+j_{sa}^{ik}-l_{k_1}-l_{k_2})!}{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - l_{k_1} - l_{k_2})!}$$

$$\frac{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!}{(l_s - l - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} - 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} = j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_s + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$n_{is}+j_s-j_{ik}-l_{ik_1}+j_{ik}-l_{ik_2}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}} \sum_{(n_{sa}=n-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = \dots + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(l_s+j_{sa}-l)}^{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} \cdot \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{(j_s - l)} \sum_{j_{ik} = j^{sa} + l_{ik}}^{(l_s + j_{sa} - l)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(j_s - l)}$$

$$\frac{(l_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$n_{sa} \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa}^{ik} = \sum_{l=1}^n \sum_{j_s=l}^n \sum_{j_{ik}=l}^n \sum_{j_{sa}^{ik}=l}^n (j_s + j_{ik} + j_{sa}^{ik} + 1)$$

$$\sum_{j_{ik}=l_{ik}+l_{sa}-j_{sa}^{ik}}^n \sum_{j_{sa}^{ik}=l_{ik}+n+s-D-j_{sa}^{ik}}^n \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}^{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-l)} (j_{sa}=l_{ik}+n+1-D-j_{sa}^{ik}) \sum_{i=1}^n (n_i+1) \sum_{n+l}^n (n_{is}=n+l+1) \sum_{n=n_{is}+j_s-l_{k_1}}^{(\cdot)} (n_{sa}=n+l+1-j_{sa}-l_{k_2}) \frac{(n_i + j_{ik} + j_{sa}^{i_s} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n_{i_s} - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^{i_s} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > n - n + 1 \wedge$$

$$2 \leq l \leq D + j_{sa}^{ik} - l_{ik} \wedge$$

$$2 \leq i_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa}^{i_s} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{i_s} < j_{sa} < n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{i_s} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = l_{k_1} > 0 \wedge$$

$$j_{sa} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-k_2} \sum_{(n_{sa}=n-j^{sa}-k_2)}^{(j_{ik}-k_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\begin{aligned}
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{l_s + j_{sa}^{ik} - l} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{()} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{()} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} - l + 1} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{()}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot \sum_{l=1}^{j_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_s} \binom{j_s-l}{j_s-j_{ik}+l} \binom{j_s-l}{j_s-j_{sa}^{ik}+l} \sum_{j_{ik}=n-D}^{n-D} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{j_{sa}=j_{ik}+l_{sa}-l_{ik}} \sum_{n_i=n+l_k}^{n_i=n+l_k} \sum_{n_{is}=n+l_k-j_s+1}^{n_{is}=n+l_k-j_s+1} \binom{n_i-j_s+1}{n_{is}-n+l_k-j_s+1} \sum_{j_{ik}=n_{is}+j_s-j_{ik}-k_1}^{j_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-k_2}^{n_{sa}=n_{ik}+j_{ik}-j_{sa}-k_2} \frac{(n_i - n_{is} - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n_{is} - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D - n + 1 \leq l_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D - l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa} = \sum_{(j_s=l_s, n-D)}^{(l_s=n-D-j_{sa}^{ik})} \sum_{(j_{ik}=l_{ik}, n-D)}^{(l_{ik}=n-D-j_{sa}^{ik})} \sum_{(j_{sa}=l_{sa}, n-D)}^{(l_{sa}=n-D-j_{sa}^{ik})} \dots$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-l_{ik}}^{n_{is}+j_s-j_{ik}-l_{ik}-1} \sum_{(n_{sa}=n-j_{sa}^{ik}-l_{ik})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - j_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j_{sa} - l_{k_2})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$

$$f_z^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \dots$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - l_{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 j_{sa} &= \sum_{k=l}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{(j_s=2)}^{(l_s + j_{sa} - l)} \\
 & \sum_{j_{sa} + j_{sa}^{ik} - j_{sa}}^{(j_{sa} = j_{sa} + 1)} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j_{sa} + 1)}^{(n_{ik} + j_{ik} - j_{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s-l+1)} \sum_{n+l_k}^{(n+l_k-j_s+1)} \sum_{n_{is}+j_{sa}^{ik}-l_{k_1}}^{(n_{ik}-j_s+1)} \sum_{n_{ik}+l_{k_2}-j_{ik}}^{(n_{ik}-j_s+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

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$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_{sa})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa} - \mathbb{k}_1)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa} - \mathbb{k}_2)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - \dots)!}{(D + j^{sa} + s - n - \dots - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$((D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_s \wedge$

$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} - j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_{z^S \Rightarrow j_s, j_{ik}, j^{sa}} = & \left(\sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \right. \\
 & \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = j_{sa})} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik}}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{is} - k_2)} \\
 & \frac{(n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - j_s - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1)} \sum_{(j^{sa} = l_s + j_{sa} - l + 1)}
 \end{aligned}$$

GÜLDÜZ

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(j_s - l - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=j_{sa}+2)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

GÜLDEN

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_{sa} - 1)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (D + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = 2)} \\
 & \sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = l_s + j_{sa} - l + 1)}^{(l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜZ

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(l+1)} \sum_{(j_s=2)}^{(j_s=2)} \dots \\
 & \sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \dots \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \dots \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

GÜLDÜMNA

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \sum_{(j_{sa} - l)}^{()} \sum_{(j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} - l_{sa} - l_{ik} + 1)}^{()} \sum_{(n_i - j_s + 1)}^{()} \sum_{(n_{ik} = n_{is} + j_s - l_{k_1} - l_{k_2} - j_s + 1)}^{()} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - l_{k_2})}^{()} \frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - l_{k_1} - l_{k_2} - j_s - s - j_{sa}^{ik})! \cdot (n + l_{k_1} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_{sa} \leq n + j_{sa} - n \wedge$$

$$1 \leq j_s = j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S \Rightarrow j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l}^n \sum_{(n_i+j_s+1)}^{(n_i+j_s+1)}$$

$$\sum_{n_i=n+l}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa})}$$

$$\frac{(n_i - n_{is})}{(i_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - 1)!}{(n_{ik} - 1)!}$$

$$\frac{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} - 1)!}$$

$$\frac{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

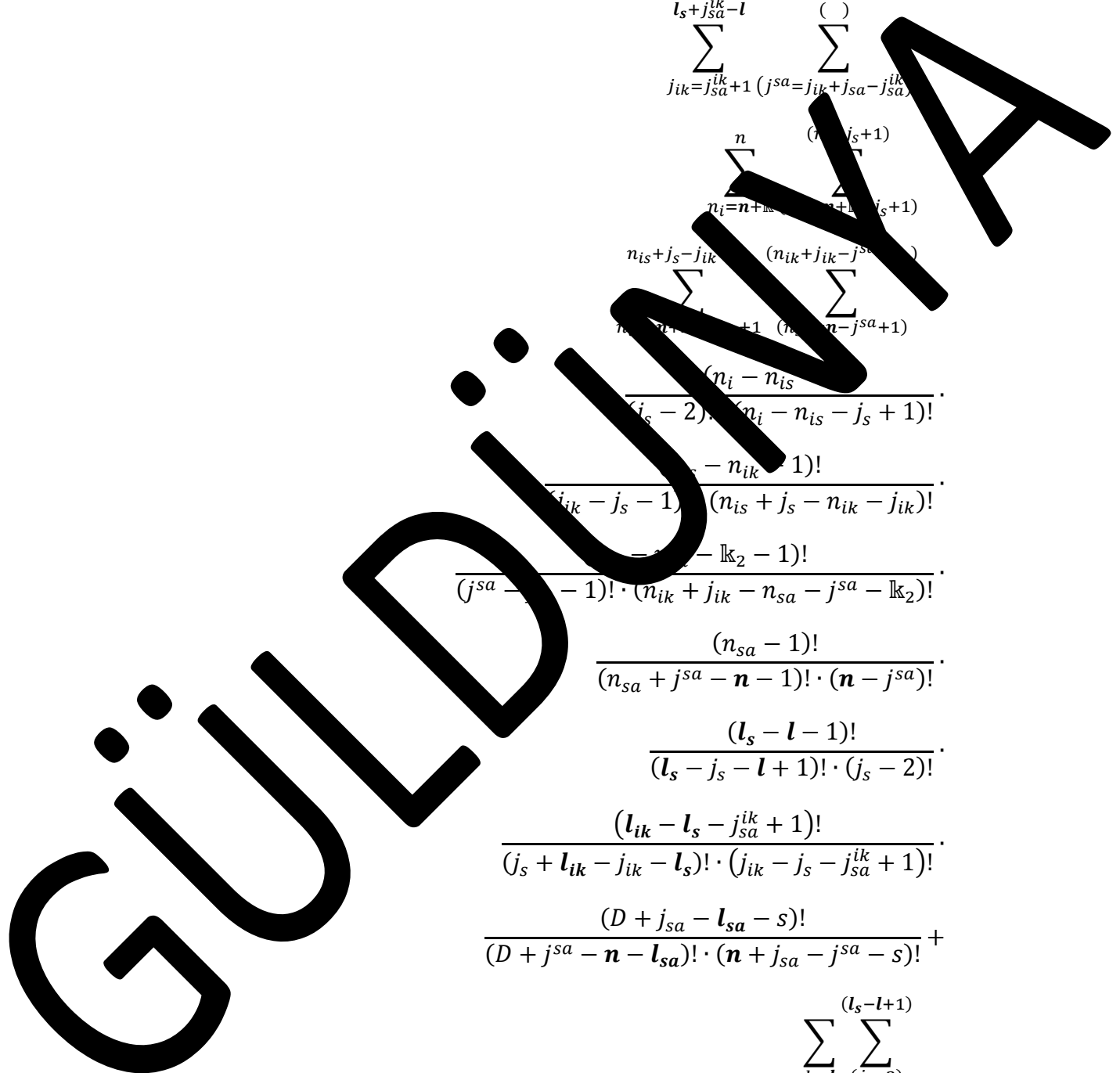
$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l-j_{sa}+1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$



$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} - n_{ik} - j_{ik} - j^{sa} - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa} - l - 1)!}{(n_{sa} - j_s - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa} - j_{sa}^{ik} + 1)!}{(n_{sa} + l_{ik} - j_{sa} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s > 4 \wedge s = \dots + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_s)}^{(n_i-j_s+1)} (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜZMÜŞA

$$\begin{aligned}
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (j_{sa} - j_s - l_{sa} + 1)!} + \\
 & \frac{(j_{ik} - j_{sa}^{ik} + 1)!}{\sum_{i=2}^{j_{ik} - j_{sa}^{ik} + 1} \binom{l_s + j_{sa}^{ik} - i}{j_{ik} - i + 1} \binom{l_{sa} - l + 1}{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1}} \cdot \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \cdot \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{s=2}^{(l_s - l + 1)}$$

$$\sum_{j_{ik} = l_{ik} - l + 1}^{l_{ik} - l + 1} \sum_{j_{sa} = j_{sa} - j_{sa}^{ik} + 1}^{(l_{sa} - j_{sa}^{ik} + 1)}$$

$$\sum_{n_{is} = n - l_{ik} + 1}^{n} \sum_{n_{ik} = n_{ik} - l_{ik} + 1}^{(n_{is} + l_{ik} - j_s + 1)}$$

$$\sum_{n_{ik} = n_{ik} - j_{ik} + 1}^{(n_{is} + j_{ik} - l_{ik_1} - (n_{ik} + j_{ik} - j^{sa} - l_{ik_2}))} \sum_{(n_{sa} = n - j^{sa} + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

GÜLDÜZMÜŞA

$$\left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{sa}^{ik}-j_{sa}^{ik})}^{(\cdot)}$$

$$(n_i + 1)$$

$$+ \mathbb{k} (n_{is} = n + \mathbb{k} - 1)$$

$$(\cdot)$$

$$= n_{is} + j_s - j_{sa}^{ik} - \mathbb{k}_1 (n_{sa} = j_{sa}^{ik} - \mathbb{k}_2)$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n + \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!}$$

$$(D - l_i)!$$

$$(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!$$

$$D \geq n < n \wedge l \neq \dots \wedge l_{sa} \leq D + j_{sa} - n$$

$$1 \bullet j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j_{sa} + j_{sa}^{ik} - j_{sa}$$

$$+ j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \dots + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > \dots + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D < n < \dots \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{sa}+1} \sum_{(n_{sa}=n-j_{sa}+j_{ik}-k_2)}^{(n_{sa}-k_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \vee$

$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq (n + j_{sa} - s))$

$D \geq n < n \wedge l_{ik} - \mathbb{k}_1 > 0 \wedge$

$j_{sa} \geq l_{ik} - 1 \wedge j_{sa}^{ik} \leq l_{ik} - 1 \wedge j_{sa} = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_s, \dots, j_{sa}^i\} \wedge$

$s > j_{sa}^s = s + \mathbb{k}_1$

$\mathbb{k}_z: z = 2, \dots, \mathbb{k}_z = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{\binom{()}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!}$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +$$

$$\left(\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

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$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_{sa}^{ik}, j_{sa}} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = l_{sa} + n - D)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

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$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=0}^{(l_s - l + 1)} \sum_{j_s=2}^{(j_s - 1)} \sum_{j_{sa}=l_s + j_{sa} - l + 1}^{(j_s + j_{sa}^{ik} - j_{sa})} \sum_{j_{sa}=l_s + j_{sa} - l + 1}^{(j_s + 1)} \\
 & \sum_{n_{is}=n + k}^{(n_{is} + k)} \sum_{n_{ik}=n - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \sum_{n_{sa}=n - j^{sa} + 1}^{(n_{sa} - 1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
 \end{aligned}$$

GÜLDENREINER

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{sa}+n-1)}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(\cdot)} \sum_{(n_{ik}=n_{ik}+j_{ik}-j^{sa})}^{(\cdot)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa} - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l)!}{(D - l + s - l_i - j_{sa}^{ik})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l_s \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + l_s - n < l_{sa} - D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 < j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$l_{k_2}: z = 2 \wedge k = l_{k_1} + l_{k_2} \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\frac{n_{is}+j_s-j_{ik}-j_{sa}^{ik}+j_{ik}-j_{sa}^{sa}-k_2}{\sum_{n_{ik}=n+k_2-j_{ik}} \sum_{(n_{sa}=n-j^{sa})}} \\
 &\frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \\
 &\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik})!} \\
 &\frac{(n_{ik}-n_{sa}-k_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-k_2)!} \\
 &\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \\
 &\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 &\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} - \\
 &\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left((D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa}^{ik} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$\geq n - l_s \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS \Rightarrow j_s, j_{ik}, j^{sa} = \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}+1)}^{(n_{is}+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{is}-j^{sa}+1)}^{(n_{is}-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - j_s + 1)!}{(n_i - j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - \mathbb{k}_2 - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

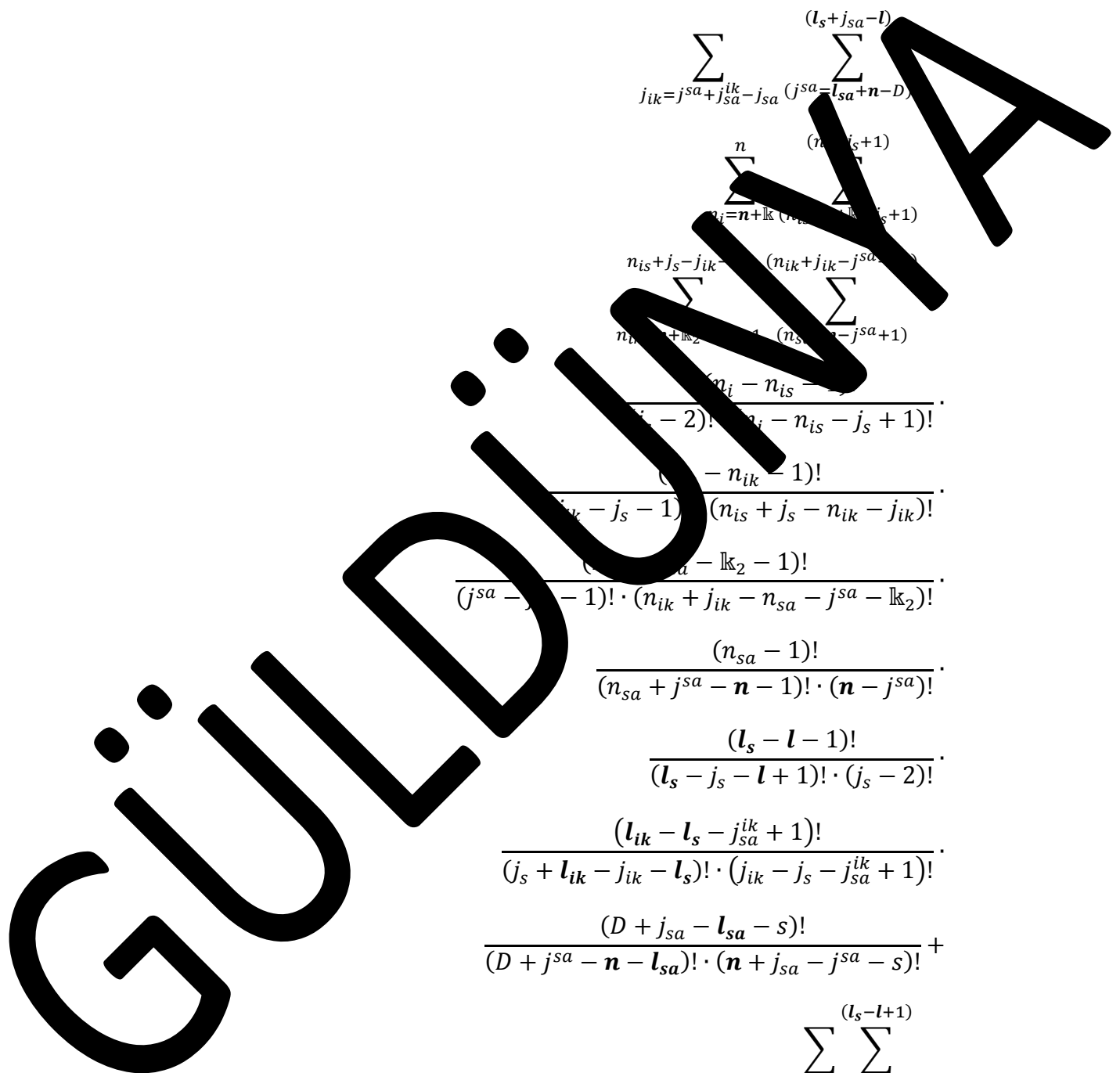
$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)}$$



$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j^{sa} - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa} - 1)!}{(l_{ik} - j_{sa} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa} - 1)!}{(l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right) \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_{sa})! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - j_{sa}^{ik})! \cdot (j_{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = 2)} \\
& \sum_{j_{ik} = l_{ik} + n - D}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = l_s + j_{sa} - l + 1)}^{(l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l+1)} \sum_{(j_s=2)}^{(j_s=2)}$$

$$\sum_{n_i=l_{ik}+n_{ik}}^{(n_i=l_{ik}+n_{ik})} \sum_{(j_{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2)}^{(j_{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=n+l_k}^{(n_i=n+l_k)} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_{is}=n+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_{ik}=n+l_{k_2}-j_{ik}+1)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{sa}=n-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

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$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \frac{(l_s - l - 1)!}{(n_i - j_s + 1)!} \cdot \frac{(n_i - l_{k_1} - l_{k_2} + k - j_s + 1)!}{(n_{ik} = n_{is} + j_{sa}^{ik} - l_{k_1} - l_{k_2})! \cdot (n_{sa}^{ik} + j_{ik} - j_{sa} - l_{k_2})!} \cdot \frac{(n_i + j_{ik} - j_{sa} - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - l_{k_1} - l_{k_2} + k)! \cdot (n + l_{k_1} + j_{sa} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$((D \geq n < n \wedge l_{sa} \leq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 2 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 2 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} S \Rightarrow j_s, j_{ik} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\ &\sum_{j_{ik}=l_{ik}+n-D}^{k-l+1} \sum_{(j_{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)} \\ &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ &\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{l=1}^{j_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s+l} \sum_{j_{ik}=j_s+l_{sa}^{ik}-j_{sa}}^{j_s+l} \sum_{j^{sa}=l_{sa}+n-D}^{j_s+l} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{j_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()} \frac{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D > n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$

$D + l_s + j_s - n - l_{sa} + 1 \leq l \leq j_s - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa}^{s-l+1}$$

$$l_{sa} + j_{sa}^{ik} - l - j_{sa} + 1$$

$$= l_{sa} + n + \dots - D - j_{sa} \dots - j_{sa}^{ik}$$

$$\sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_{sa}-\mathbb{k}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik})!} \cdot \frac{(j_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l)!}{(D + j_s + s - l_i - l)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_s - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$l < i \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_{Z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}^{(l_{sa}+n-D-j_{sa})} \\
 &\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{ik_1}} \sum_{(n_{sa}=n-j_{sa}^{sa}-k_2)}^{(n_{ik}-l_{ik_2})} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜZYA

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s - 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDENSKY

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fzS_{\Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j_s=2)}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - l_{sa})!} \cdot \sum_{k=l}^{(l_s-l+1)} \sum_{i=0}^{(n_{sa}-j_{sa}+1)} \sum_{j_{ik}+j_{sa}^{ik}-1}^{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \frac{(n_{is} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

- $(n > n \wedge l \neq i) \wedge l_s \leq D - n + 1 \wedge$
- $2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n_{sa} - l_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{-l+1} \sum_{(j_s=2)}^{-l+1} \\
 & \sum_{j_{sa}^{ik} - l + 1}^{l_{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \left(\sum_{k=l}^{(l_{sa} + n - D - j_s)} \sum_{(j_s=2)}^{(n_i - j_s + 1)} \right) \\
 & \sum_{j_{ik}=l_{ik}-D}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j_s=2)}^{(n_i - j_s + 1)} \frac{(l_{ik} + j_{sa} - j_{sa}^{ik} + 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \sum_{n_{ik}=l_{ik}-k_2-j_{ik}+1}^{n_{is} + j_s - k_1 - 1} \sum_{(n_{ik} + j_{ik} - k_2 - j_{ik} + 1)}^{(n_{ik} + j_{ik} - k_2 - j_{ik} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j_s - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
 \end{aligned}$$

GÜLDÜZYA

$$\begin{aligned}
 & \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+s)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}} \sum_{(n_{sa}=n-j_{sa}^{ik})}^{(n_i-j_s+1)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - k_2)!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \\
 & \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)}
 \end{aligned}$$

GÜLDENYA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_{s_a} - j^{s_a} - l_{k_2})!} \cdot \\
 & \frac{(n_{s_a} + j^{s_a} - n - 1)!}{(n_{s_a} + j^{s_a} - n - l - 1)!} \cdot \\
 & \frac{(n_i - n_{i_s} - j_s - 1)! \cdot (j_s - 2)!}{(n_i - n_{i_s} - j_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!}{(n_i + l_{i_k} - j_{i_k} - j_{s_a}^{i_k})! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot \\
 & \frac{(l_{s_a} + j_{s_a}^{i_k} - l_{i_k} - j_{s_a})!}{(j_{i_k} + l_{s_a} - j_{s_a}^{i_k} - l_{i_k})! \cdot (j^{s_a} + j_{s_a}^{i_k} - j_{i_k} - j_{s_a})!} \cdot \\
 & \frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j^{s_a} - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{s_a}+n-D-j_s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{i_k}=l_s+j_{s_a}^{i_k}-l+1}^{l_{i_k}-l+1} \sum_{(j^{s_a}=j_{i_k}+j_{s_a}-j_{s_a}^{i_k}+1)}^{(l_{s_a}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})}
 \end{aligned}$$

GÜLDÜŞMEYAZ

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - l_{ik} - j_{sa} + 1)! \cdot (j_{ik} - j_{sa} - j_{sa} + 1)!} \cdot \\
 & \frac{(n_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_s + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
 & \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{l_s + j_{sa}^{ik} - l} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

GÜLDENWA

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} \cdot \\
& \sum_{j_{ik}=j_s - j_{sa}^{ik} - j_{sa}}^{\sum_{j_s=l_s-l+1}} \sum_{j_s=2}^{\sum_{j_s=l_s-l+1}} \frac{(l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1)!}{(j_s - l + 1)!} \cdot \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \frac{(n_{is} + j_s - j_{ik} - \mathbb{k}_1)!}{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa} \ (j^{sa}=l_{ik}+n+1-D-j_{sa}^{ik})}^{(l_s+j_{sa}-l)} \sum_{(n_i=j_{ik}+1)}^{(n_i+j_{sa}-1)} \sum_{(n+l_{ik} \ (n_{is}=n+l_{ik}+1))}^{(n)} \sum_{(n_{is}=n+l_{ik}-\mathbb{k}_1 \ (n_{sa}=n+l_{ik}-j_{sa}-\mathbb{k}_2))}^{(\cdot)} \frac{(n_i + j_{ik} + j_{sa}^{ik} - j_{sa} - s - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + j_{sa} - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n - 1 \wedge$$

$$l_s + j_{sa}^{ik} - j_{sa} - l_{ik} + 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} = j_{sa} \wedge n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - j_{sa} < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \\
 &\sum_{n_i=n+1}^n \sum_{(n_i+j_s+1)}^{(n_i+j_s+1)} \\
 &\sum_{(n_{is}+j_s-j_{ik})}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{ik}+j_{ik}-j^{sa})}^{(n_{ik}+j_{ik}-j^{sa})} \\
 &\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik})}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - \dots - 1)! \cdot (l_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 &\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-l)}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_j)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - 1)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{ik} - n < l_{ik} \wedge D + l_s + j_{sa}^{ik} - j_{sa} - 1$$

$$D > n < n \wedge \mathbb{k} > 0$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^b - j_{sa} - 1 \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = \mathbb{k} \wedge$$

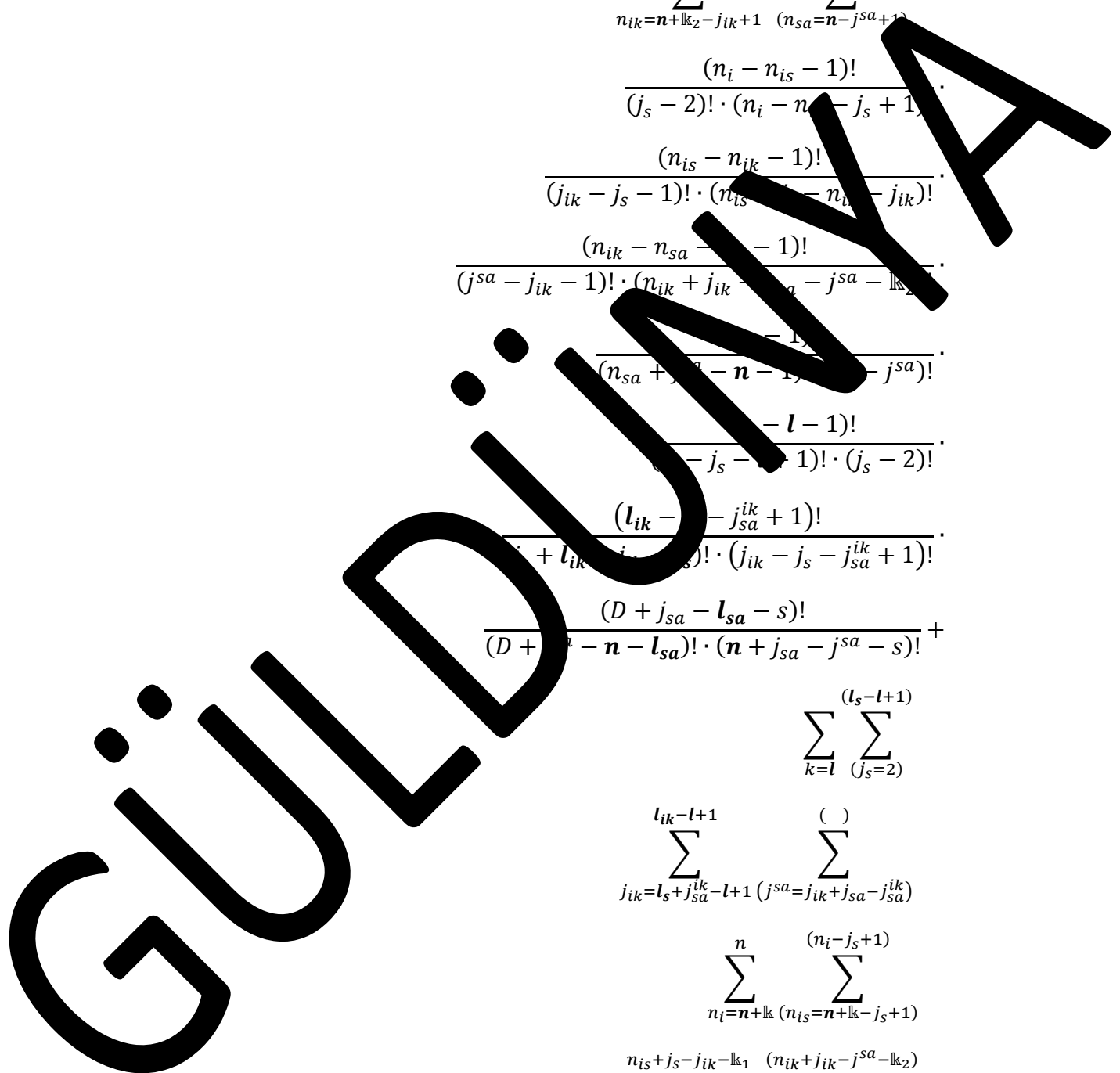
$$\mathbb{k}_2 = \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_s=2)}^{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})} \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_{s_a} - j^{s_a} - l_{k_2})!} \cdot \frac{(n_{s_a} + j^{s_a} - n - 1)!}{(n_{s_a} - n_{i_k} - j_{i_k} - 1)!} \cdot \frac{(l_{i_k} - j_{i_k} - j_{s_a} + 1)!}{(n_{i_k} + l_{i_k} - j_{i_k} - j_{s_a})! \cdot (j_{i_k} - j_s - j_{s_a} + 1)!} \cdot \frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j_{s_a} - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \sum_{j_{i_k}=l_s+j_{s_a}^{i_k}-l+1}^{l_{i_k}-l+1} \sum_{(j^{s_a}=j_{i_k}+j_{s_a}-j_{s_a}^{i_k})}^{(\quad)} \frac{\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})} \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot$$



$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{l=1}^{j_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s}$$

$$\sum_{j_{sa}^{ik}=l}^{l_s} \sum_{j_{sa}^{ik}=j_{ik}+n-D}^{()} (j_{sa}^{ik}=j_{ik}+j_{sa}-j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$((D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} \wedge j_{sa}^s = j_{sa}^{ik} \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s > 4 \wedge s = s + \mathbb{k}$$

$$\mathbb{k} = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j_{sa}} = \left(\sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)} \right)$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}-l+1} \sum_{(j_s)}^{()} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{j_s=l}^{l_s-l+1} \sum_{j_{sa}=j_s+n-D-j_{sa}+1}^{l_s-l+1} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{()} \\
 & \sum_{n_i=n+\mathbb{k}_2}^n \sum_{(n_{is}=n+\mathbb{k}_2-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \left(\sum_{i=l}^{(l_s - n - D - j_{sa})} \sum_{j=2}^{(j_s - 2)} \right) \cdot \\
 & \sum_{n_{sa}=n-D}^{j^{sa} + j_{sa}^{ik} - 1} \sum_{n_{sa}=l_{sa} + n - D}^{(l_{ik} + j_{sa} - 1)} \cdot \\
 & \sum_{n_{is}=n}^{n_{is} + \mathbb{k}_1} \sum_{n_{is}=n + \mathbb{k}_1 - j_s + 1}^{(n_{ik} + j_{ik} - 1)} \cdot \\
 & \sum_{n_{ik}=n - j_{ik} + 1}^{n_{is} + j_{ik} - \mathbb{k}_1} \sum_{n_{sa}=n - j^{sa} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
 \end{aligned}$$

GÜLDENMÄ

$$\begin{aligned}
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{ik}+j_s-l-j_{sa}^k+2)}^{(l_{sa}-l+1)} \\
 & \sum_{k_2=0}^n \sum_{(n_{is}=n-k_2+1)}^{(n_{ik}-k_2+1)} \\
 & \sum_{k_2=0}^{n_{is}+j_s-j_{ik}-k_2} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_{ik}-n_{sa}-k_2-1)!}{(j^{sa}-j_{sa}^k-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-k_2)!} \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=j_{sa}^{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_s+1) \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-l_{k_2}-1)}{(j^{sa}-j_{ik}-1) \cdot (n_{ik}+j_s-n_{sa}-j^{sa}-l_{k_2})!} \cdot \frac{(n_{sa}+1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_s-l+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(j_s-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + j_{sa}^{ik} + j_{sa} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - j_{sa} = -1 \wedge$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^s - \mathbb{k}_1, \mathbb{k}_2, j_{sa}^s - \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = i \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{\binom{(\cdot)}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - k_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
& \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^S \Rightarrow j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{()}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}^{ik} = j_{sa}^{ik} - 1}^{(j_{sa}^{ik} - j_{sa}^{ik} + 1)} \sum_{j_{ik} = j_{sa}^{ik} - 1}^{(j_{sa}^{ik} - j_{sa}^{ik} + 1)} \sum_{j_{sa}^{ik} = j_{sa}^{ik} - 1}^{(j_{sa}^{ik} - j_{sa}^{ik} + 1)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{n_{is} = n + \mathbb{k} - j_s + 1}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{n_{sa} = n - j^{sa} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_{sa}=j_s-j_{sa}^{ik})} \sum_{(n_i=j_s+l_{ik}-1)}^{(n_i=j_s+l_{ik}+1)} \sum_{(n+l_{ik}(n_{is}=n+l_{ik}+1))}^{(n+l_{ik}(n_{is}=n+l_{ik}+1))} \sum_{(n=n_{is}+j_s-l_{ik_1}(n_{sa}=n_{is}+j_s-l_{ik_2}))}^{(n=n_{is}+j_s-l_{ik_1}(n_{sa}=n_{is}+j_s-l_{ik_2}))} \frac{(n_i + j_{ik} + j_{sa}^{ik} - s - l_{ik_1} - l_{ik_2})!}{(n_i - n_{is} - l_{ik_1} - l_{ik_2})! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n \wedge l \wedge$$

$$l_s + j_{sa}^{ik} - n - l_{ik} \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} = j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} = j_s + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n}^n \sum_{(n_i=j_s+1)}^{(n_i=j_s+1)} \\
 &\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \\
 &\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_j)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - l)}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa} - j_{sa} > l_{ik}$$

$$l_{sa} > D + l_{ik} + j_{sa} - n - j_{sa}^{ik}$$

$$D \geq n < n \wedge l = 1 \geq 0 \wedge$$

$$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_s\}$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(j_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - l_{sa} - j_{sa}^{ik} - l_{ik} - j_{sa})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n \wedge l \neq i \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_{sa}^{sa} + j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{sa} + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$

$l_{sa} > D + j_{sa} - n - j_{sa}^{ik} \wedge$

$l_{sa} \geq n - l_{sa} \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{\mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=1}^n \sum_{(n_i=n+j_s+1)}^{(n-j_s+1)}$$

$$\sum_{(n_{is}+j_s-j_{ik}-l_{ik_1})}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_2})} \sum_{(n_{ik}-j_{ik}+1)}^{(n-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - j_s + 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^S \Rightarrow j_s, i, j_{sa} - \sum_{k=l}^{(j_{sa}^{ik}+1)} (j_{sa}^{ik}+1)$$

$$= j_{sa}^{ik} + l_{ik} \sum_{j_{sa}^{ik}+1}^{(l_s+j_{sa}-l)} (l_s+j_{sa}-l)$$

$$\sum_{n_i=n+k}^{(n_i-j_s+1)} (n_i-j_s+1)$$

$$\sum_{n_{is}=n+k-k_1}^{(n_{is}+j_s-k-k_1)} (n_{is}+j_s-k-k_1)$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} (n_{ik}+j_{ik}-j_{sa}-k_2)$$

$$\sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}-1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_i \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} = j_{sa}^s \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + 1$

$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s + j_{sa}^{ik} - l + 1}^{(l_s - j_{sa} - l - j_{sa} + 1)} \sum_{(j^{sa}=j_{ik} + l_{sa} - l_{ik})} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \sum_{k=l}^{(\cdot)} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{(\cdot)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s - k - l} \sum_{j_{sa}^{ik}=j_{ik}+l_{sa}-l_{ik}}^{(\cdot)} \sum_{n_i=0}^n \sum_{n_{is}=n+k-j_s+1}^{(\cdot)} \sum_{n_{is}+j_s-j_{ik}-k_1}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-k_2}^{(\cdot)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i l \wedge \dots \leq D + j_{sa} - n \wedge$$

$$1 \leq \dots < j_{ik} - j_{sa} \dots \wedge$$

$$j_{ik} = j_{sa} + \dots - j_{sa} \wedge$$

$$\dots + j_{sa} \dots \leq j_{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j_{sa}=j_{ik}+j_{sa}-l_{ik})}^{(n_i-j_s)}$$

$$\sum_{n_i=n+l_{k_1}-j_s+1}^{(n_i-j_s)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}-l_{k_2})}$$

$$\sum_{n_{sa}+j_{sa}-j_{ik}}^{(n_{sa}-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(n_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - l_{k_2})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+lk}^n \sum_{(n_{is}=n+lk-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-lk_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-lk_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{lk_1} - lk_2)!}{(n_i - n - lk_1 - lk_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{lk_1} - lk_2)!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - n)!}{(D + j^{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$2 \leq l \leq D + l_s + j_{sa} - n - 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} < n + j_{sa} - s$

$l_{ik} - j_{sa}^{ik} + 1 > 1 \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$

$D \geq n < n \wedge I = lk > 0$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, lk_1, j_{sa}^{ik}, \dots, lk_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + lk \wedge$

$lk_z: z = 2 \wedge lk = lk_1 + lk_2 \Rightarrow$

$$fz^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-l_{k_2}-1)!}{(j^{sa}-j_{ik}-l_{k_2})! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-l_{k_2})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - l_{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - j_s - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa} + 1)}^{(\cdot)} \\
& \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = l_{sa} + n - D)}^{(l_s + j_{sa} - l)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\cdot)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f^z = f^z(i_s, j_{ik}, j^{sa}) = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_i)!} \sum_{k=l}^{()} \sum_{j_s=j_{ik}^{()}}^{()} \sum_{j_{sa}=j_{sa}^{()}}^{()} \sum_{j_{sa}=l_{sa}+n-D}^{()} \sum_{j_s=j_s+1}^{()} \sum_{n_{is}=n+k-j_s+1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{()} \frac{(n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

- $\geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$
- $2 \leq l < D + l_s \wedge n - l_{sa} \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{sa} = j^{sa} - j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$
- $D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$
- $D \geq n < n \wedge l = k > 0 \wedge$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{sa}=j_{ik}+l_{sa})}^{(n)} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_i-n_{is}-1)!} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{is}-n_{ik}-1)!} \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_s-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \cdot \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + j_{sa} - n - l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1$$

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^s - \mathbb{k}_1, \mathbb{k}_2, j_{sa}^s - \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{\binom{()}{j^{sa}=j_{ik}+l_{sa}-l_{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_s - k_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\quad)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{\mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} ()$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} \cdot \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}=j_{ik}+k}^{(n-j_{sa}+1)} \sum_{j_{ik}=j_{sa}^{ik}-1}^{(n+j_{sa}^{ik}-l_{sa}+1)} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{(n-j_s+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_{sa}-l_{ik})}^{()}$$

$$\sum_{i=n+k}^n \sum_{(n_{is}=n-k+1)}^{(n_{is}+1)}$$

$$\sum_{n_{is}=n_{is}+j_{sa}^{ik}-k_1}^{()} \sum_{(n_{is}+1)}^{()} \sum_{(j^{sa}-k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq D - n - 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} - 1 \leq l \leq l_s - 1 \wedge$$

$$1 \leq i_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} = j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} < j^{sa} < n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - l_{sa} < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{\mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n_{is}+j_s+1}^n \sum_{(j_s=2)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j_{sa})} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

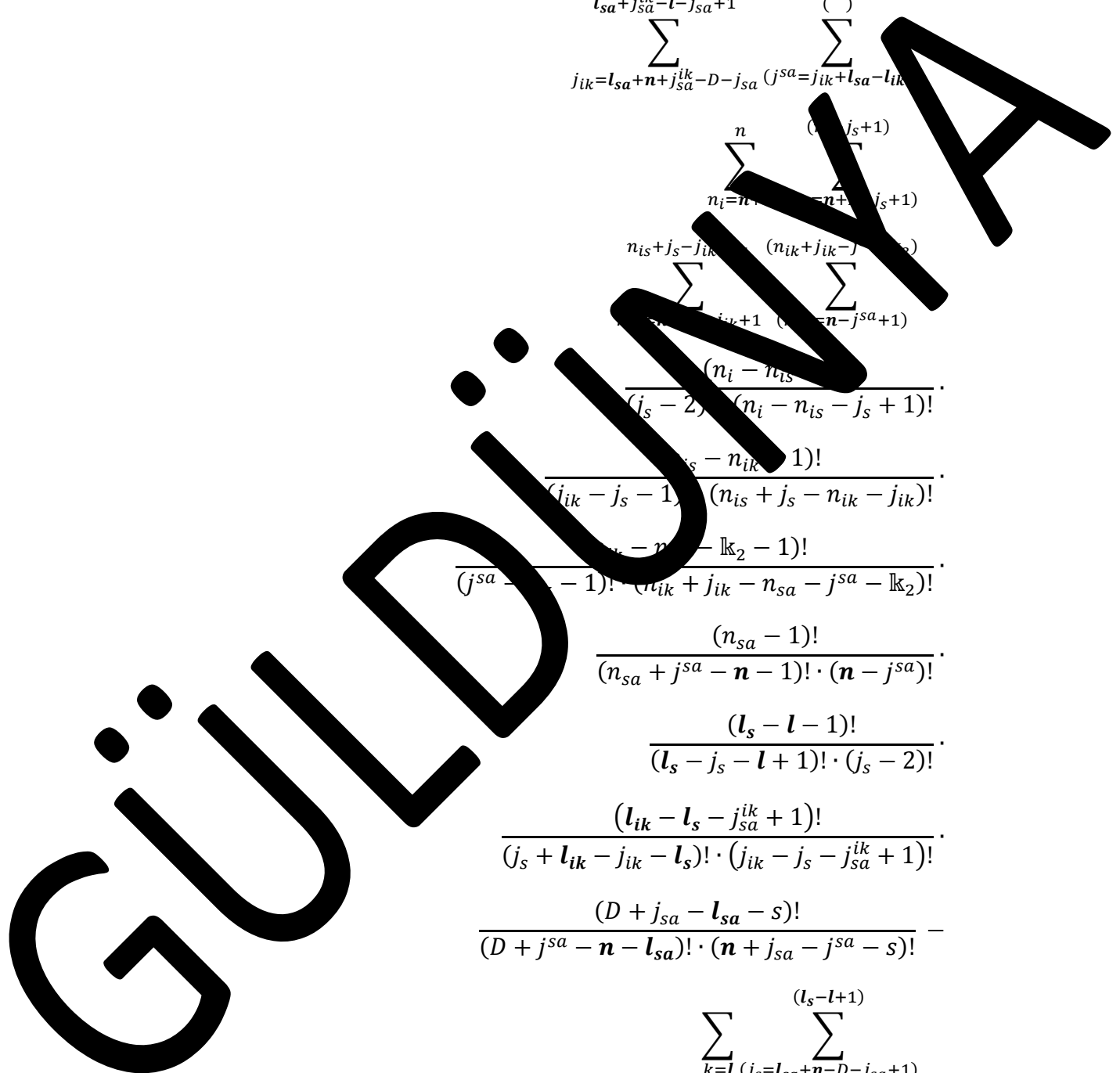
$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - 1)! \cdot (l - 2)!}$$

$$\frac{(D - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - l_{sa} - j^{sa} - l_{ik})!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - l_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{ik} - n < l_{ik} \wedge D + l_s + j_{sa}^{ik} - j_{sa} - 1$$

$$D > n < n \wedge \mathbb{k} > 0$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^b \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = \mathbb{k} \wedge$$

$$\mathbb{k}_2 = \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{zS \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-l)}$$

$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})} \\
& \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
& \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
& \frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_{s_a} - j^{s_a} - l_{k_2})!} \cdot \\
& \frac{(n_{s_a} + j^{s_a} - n - 1)!}{(n_{s_a} - n_{i_k} - j_{i_k} - 1)!} \cdot \\
& \frac{(l_{i_k} - j_{i_k} - j_{s_a} + 1)!}{(n_{i_k} + l_{i_k} - j_{i_k} - j_{s_a})! \cdot (j_{i_k} - j_s - j_{s_a} + 1)!} \cdot \\
& \frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j_{s_a} - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
& \sum_{j_{i_k}=j^{s_a}+l_{i_k}-l_{s_a}} \sum_{(j^{s_a}=l_s+j_{s_a}-l+1)}^{(l_{i_k}+j_{s_a}-l-j_{s_a}^k+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})} \\
& \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{j_{ik}=1}^{j_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s} \\
 & \sum_{j_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{j_s} \sum_{j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq i l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz = \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=2}^{(j_{sa}-l-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_{sa}^{ik}+l_{ik}}^{n} \sum_{j_{sa}=(j_{sa}=l_{ik}+n+s-D-j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}}^{n} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-n_{is}-1)!} \cdot \frac{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)}{\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{is}-n_{ik}-1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \sum_{(l_s+j_{sa})}^{()} \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(j_{sa}=l_{ik}+j_{sa}^{ik})} \sum_{(n_i-j_s+1)}^{()} \sum_{(n_{ik}+l_{ik}-j_s+1)}^{()} \sum_{n_{ik}=n_{is}+j_{sa}-l_{k_1}}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i + j_{ik} - j_{sa}^s - j_s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(l_i - n_{ik} - l_{k_1} - l_{k_2})! \cdot (n + l_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq n - 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} - j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - n \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=l} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{ik}+j_{sa}^{ik}-l_{ik})}^{(n_i-j_s)}$$

$$\sum_{n_i=n+k}^{(n_i-j_s)} \sum_{(n=n+k-j_s+1)}^{(n_i-j_s)}$$

$$\sum_{n_{is}=j_{ik}-k_1}^{(n_{is}+j_s-n_{ik}-j_{ik})} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}-k_2)}$$

$$\sum_{n_{sa}=n+k_2-j_{ik}}^{(n_{sa}-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - k_2)!}$$

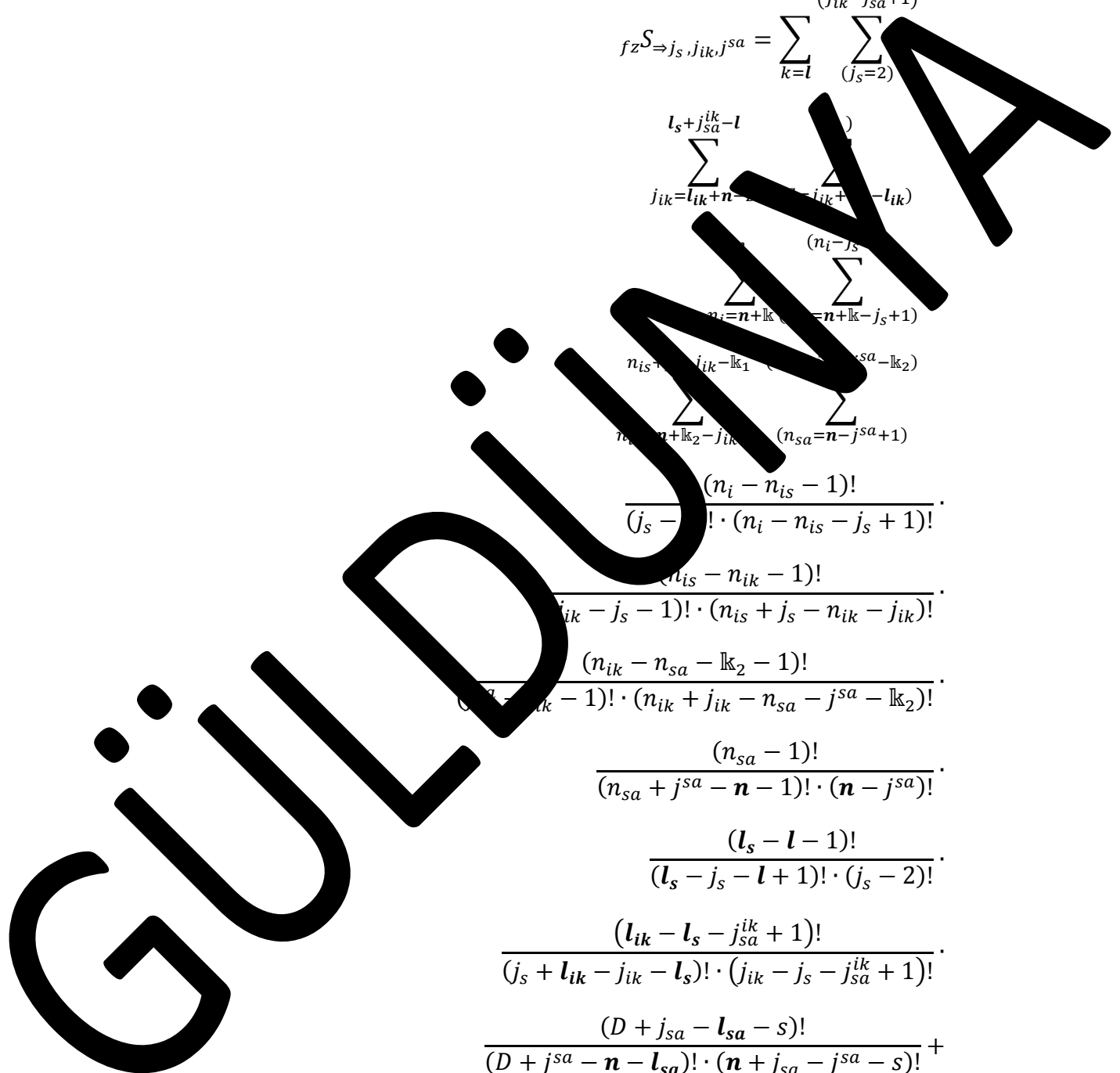
$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=l} \sum_{(j_s=2)}^{(l_s-l+1)}$$



$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_2})}$$

$$\frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s)(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-l_{k_2}-1)!}{(j_{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j_{sa}-l_{k_2})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)!(n-j_{sa})!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)!(j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)!(j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})!(n+j_{sa}-j_{sa}-s)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_{k_2})}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - 1)!}$$

$D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$

$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq i l - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}\} \wedge$

$s > 4 \wedge s = s + 1 \wedge$

$\mathbb{k}: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + 1 \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} ()$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - l_{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - j_s - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{l_s + j_{sa}^{ik} - l} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{sa}^{ik}} = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j_{ik}=l_{ik}+n-D}^{(l_{ik}-l+1)} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l_s}^{(l_s - l + 1)} \frac{(l_s - k)!}{(l_{ik} + n - j_{sa}^{ik} + 1)!} \cdot \\
 & \sum_{i_s=0}^{l_{ik} - 1} \frac{(l_s - i_s - 1)!}{(i_s + j_{sa}^{ik} - 1)!} \cdot \sum_{j_{ik}=0}^{l_{sa} - l_{ik}} \frac{(l_s - j_{ik} - 1)!}{(j_{ik} + l_{sa} - l_{ik})!} \cdot \\
 & \sum_{n_{ik}=0}^{n_{is} + j_{ik} - k_1} \frac{(n_{is} + k)!}{(n_{is} + k - j_s + 1)!} \cdot \sum_{n_{ik}=0}^{n_{ik} + j_{ik} - j^{sa} - k_2} \frac{(n_{is} + j_{ik} - k_1)!}{(n_{ik} + j_{ik} - j^{sa} - k_2)!} \cdot \\
 & \sum_{n_{ik}=0}^{n_{ik} - j_{ik} + 1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{()} \sum_{(j^{sa}=j_{ik}+l_{sa}-l)}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{()} \sum_{(n_{ik}+j_{ik}-j^{sa}=n_{is}-l_{k_2})}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{sa}^{ik} - l_{k_1} - l_{k_2} - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(n - l_i)!}{(D + j_s - n - l_i)! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq n - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l_s \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa}^s \wedge$$

$$l_{ik} - j_{sa}^{ik} > l_s \wedge l_{sa}^{ik} - j_{sa}^{ik} = l_{ik} \wedge$$

$$D + j_s - n < l_{ik} - D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = l_k > 0 \wedge$$

$$l_{ik} < j_{sa}^{ik} < j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$\begin{aligned}
 f_{z^{\mathcal{S}} \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+l_{k_2}-j_{ik}-1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{sa}=n-j^{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l = i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_i \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} = j_{sa}^s \wedge j_{sa}^s = j_{sa}^i - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + 1$

$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{l \binom{()}{j_s=1}}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{\binom{(l_{sa}-l+1)}{j^{sa}=j_{sa}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(n_i-j_{ik}-\mathbb{k}_1+1)}{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}} \sum_{\binom{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}{n_{sa}=n-j^{sa}+1}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!}$$

$$\sum_{k=0}^{()} \binom{()}{k} \binom{()}{l - k}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{()} \binom{()}{j_{sa}^{ik} - j_{sa}}$$

$$\sum_{n_i=n}^n \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()} \binom{()}{n_{ik}=n_i-j_{ik}+1}$$

$$\frac{(n_i - n - \mathbb{k}_1 + j_{sa}^{ik} - j_{sa}^{ik} - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$(n \geq n < n) \wedge (l \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$(l_{ik} - j_{sa}^{ik} + j_{sa} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(n \wedge l = l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$$

$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa} = \left(\sum_{k=1}^{\dots} \sum_{(j_s=1)}^{(\dots)} \dots \right)$$

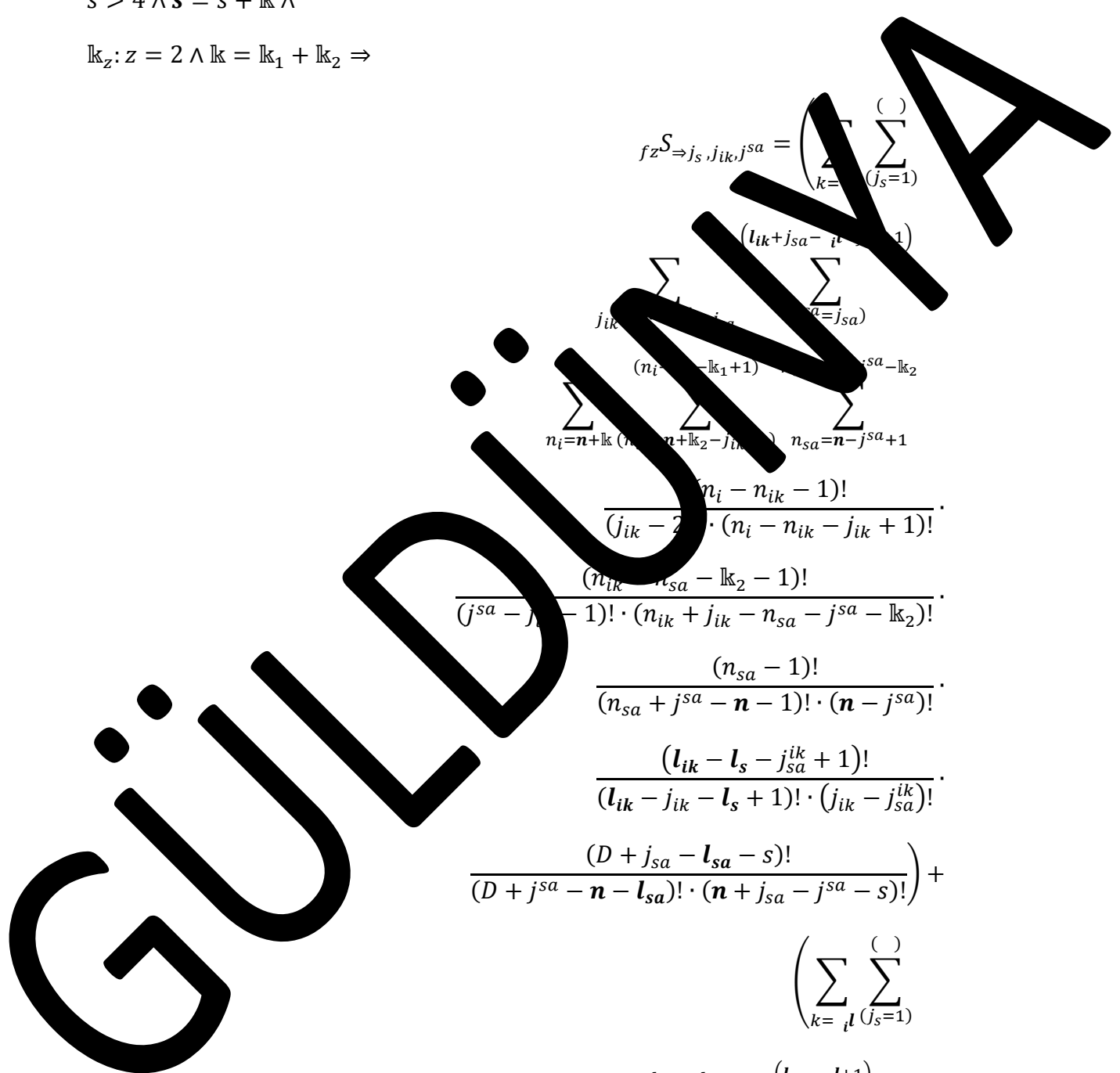
$$\dots \sum_{(n_i = n + \mathbb{k} - \mathbb{k}_1 + 1)}^{(l_{ik} + j_{sa} - i^{l+1})} \dots \sum_{(n_{sa} = n - j_{sa} + 1)}^{(j_{sa} - 1)}$$

$$\dots \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!}$$

$$\dots \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\dots \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left(\sum_{k=1}^{\dots} \sum_{(j_s=1)}^{(\dots)} \dots \right)$$

$$\dots \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik} - i^{l+1}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa} - i^{l+1})}$$



$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa} - \mathbb{k}_1)!} \cdot \\
 & \frac{(l_{sa} - l_s - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + l_{ik} - j_{sa})!} \cdot \\
 & \left(\frac{(D - j_{sa} - l_{sa} - s)!}{(n + j^{sa} - n - l_{sa})! \cdot (n + j^{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=i}^{()} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j_{sa}=j_{sa})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$(D - n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l = l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$D \geq n < n \wedge l = l > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j^{sa} = \left(\sum_{k=i}^l \sum_{j_s=1}^{(\cdot)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\left(\sum_{k=i}^{(\cdot)} \sum_{l \in J_s=1}^{(\cdot)} \right)$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i+1} \sum_{(j^{sa}=j_{sa}+n-D)}^{(l_{sa}-i+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}-k_2}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{sa}^{ik} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=i}^{(\cdot)} \sum_{l \in J_s=1}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{(j^{sa}=j_{sa})}^{(\cdot)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n_i-j_{ik}-k_1+1)}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{(\cdot)}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i^l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-i^l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^n \sum_{j_s=1}^{(j_{ik} - j_{sa}^{ik})} \frac{\sum_{j_{ik}=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{j_{sa}=1}^{(j_{sa} - l_{sa})} \frac{\sum_{n+l_k=n+l_k}^n (n_{ik}=n_{ik}-l_{k_1}-l_{k_2})! \cdot (j_{ik} - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (j_{ik} - j_{sa}^{ik} - l_{k_1} - l_{k_2})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = l \wedge l_s = D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa}^{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{sa} < j_{sa}^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D - l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = l_{k_1} + l_{k_2} \wedge$$

$$j_{sa}^{sa} = j_{sa}^{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=1}^n \sum_{j_s=1}^{(j_{ik} - j_{sa}^{ik})}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-i+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \\
 & \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \\
 & \frac{(n - 1)!}{(n - j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(j_{ik} - l_s - j_{ik} - 1)!}{(j_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \\
 & \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j_{sa} - n - l_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 & \sum_{k=l}^{()} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{k=1}^{\binom{D+j_{sa}-n-l_{sa}}{j_{sa}^{ik}}} \sum_{j_s=1}^{\binom{D+j_{sa}-n-l_{sa}}{j_{sa}^{ik}}} \sum_{j_{ik}=l_{sa}+n+j_{sa}-j_s}^{D-j_{sa}} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{k=1}^{\binom{D+j_{sa}-n-l_{sa}}{j_{sa}^{ik}}} \sum_{j_s=1}^{\binom{D+j_{sa}-n-l_{sa}}{j_{sa}^{ik}}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_{ik})!}{(D + s - n - \mathbb{k}_1 - \mathbb{k}_2)! (n - s)!}$$

$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_{sa} - j_{sa} - n + 1 \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1$

$s: \{j_{sa}^{i-1}, j_{sa}^{ik}, \dots, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + 1 \wedge$

$\mathbb{k}_2: 2 \leq \mathbb{k}_2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_{Z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=i} \sum_{(j_s=1)}^{()}$$

$$(l_{ik} + j_{sa} - i - j_{sa}^{ik} + 1)$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{ik}+n+s-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}-\mathbb{k}_2}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} - 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (n_{sa} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_{sa})!} \cdot \sum_{j_s=1}^{(n)} \sum_{j_{ik}=j_{sa}^{ik}}^{(n)} \sum_{j^{sa}=j_{sa}}^{(n)} \sum_{n_i=n_{ik} - \mathbb{k}_1}^{(n)} \sum_{n_{sa}=n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}^{(n)} \frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - j_{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n \wedge n \wedge l = i \wedge l \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1$$

$$j_{ik} + j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(\quad)} \sum_{j_s=1}^{(\quad)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i+1} \sum_{j_{sa}=1}^{(\quad)} \sum_{j_{sa}^{ik}=1}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n-i+1}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}}$$

$$\frac{(n_i - n_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}{(j_{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

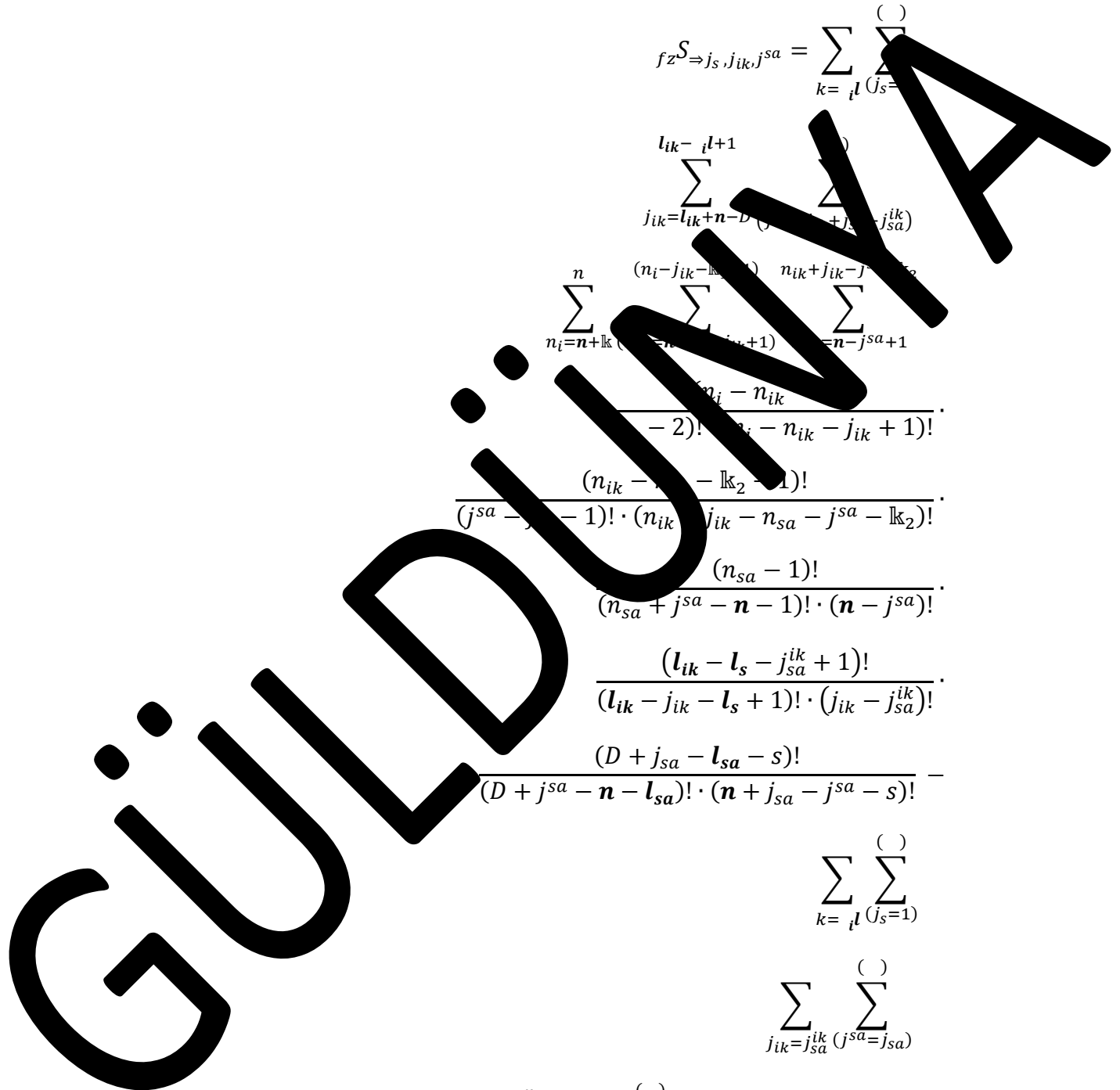
$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{(\quad)} \sum_{j_s=1}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{j_{sa}=j_{sa}}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}^{(\quad)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$



$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = {}_i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^{j_s, j_{ik}, j_{sa}} = \sum_{k=l}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa}-l+1)} \sum_{j_{sa}=j_{sa}}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{n_{ik}=n+k_2-j_{ik}+1}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

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$$\sum_{k=i}^{\binom{()}{l}} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{\binom{()}{l}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k_2})}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l - l_i)!}{(D - n - l)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i! \wedge l_{sa} \leq D + j_{sa} \cdot n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = i! > 0 \wedge$$

$$j_s \leq j_{sa} - 1 \wedge j_{sa}^{ik} < j_s - 1 \wedge j_{sa}^s = j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, \dots, j_{sa}, \dots, i\} \wedge$$

$$s > 4 \wedge s = s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_{k_z} = l_{k_1} + 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=i}^{\binom{()}{l}} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-i-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{\binom{()}{l}}$$

$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - l_s - \mathbb{k}_2)!} \cdot \\
 & \frac{(l_{sa} - j_{sa} - s)!}{(l_{sa} - j^{sa} - n - l_s + 1)! \cdot (l_{sa} - j_{sa} - s)!} \cdot \\
 & \sum_{k=1}^{()} \sum_{l_s=1}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j^{sa}=j_{sa})}^{()} \\
 & \sum_{n+\mathbb{k}}^n \sum_{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$D - n < l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{sa}^{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

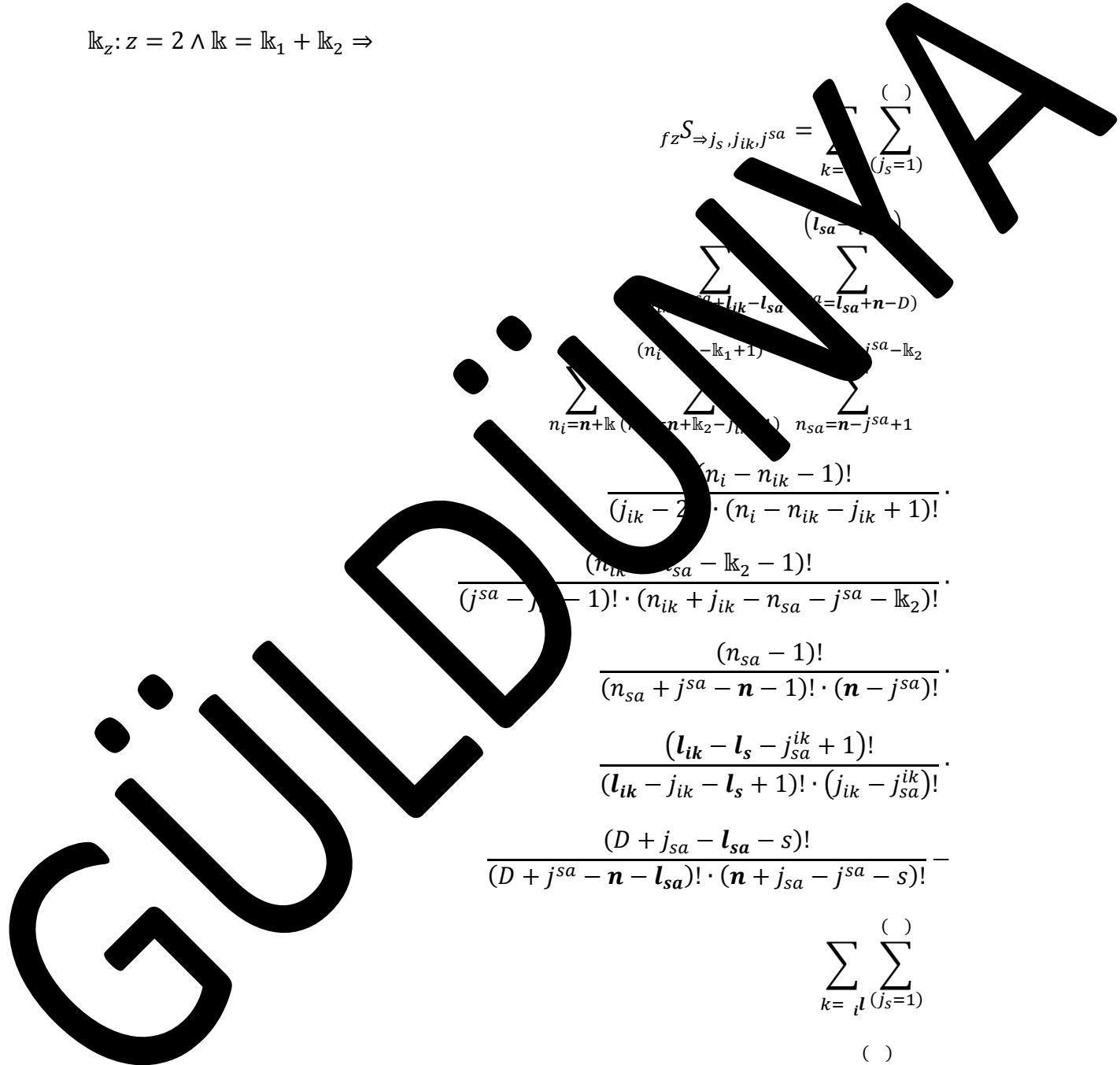
$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S \Rightarrow j_s, j_{ik}, j^{sa} = \sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{(l_{sa}=1)}^{()} \sum_{(n_i=n+\mathbb{k} (n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1))} \sum_{(n_{sa}=n-j^{sa}+1)} \sum_{(n_{sa}+j_{ik}-l_{sa})} \sum_{(a=l_{sa}+n-D)} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{n_i=n+\mathbb{k} (n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^n \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()} \sum_{()}$$



$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$f_{zS \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=i}^{\binom{()}{}} \sum_{l=1}^{\binom{()}{}}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-i-l-j_{sa}+1} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{\binom{()}{}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(i)} \sum_{j_s=1}^{(i)} \sum_{j_{ik}=1}^{(i)} \sum_{j_{sa}=1}^{(i)} \sum_{l_i=1}^{(i)} \sum_{l_s=1}^{(i)} \sum_{l_{ik}=1}^{(i)} \sum_{l_{sa}=1}^{(i)} \frac{\sum_{n+l_k}^n (n_{ik}=n_{i_1} - l_{k_1} - l_{k_2} - j_{sa} - l_{k_2} + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$D \geq n < n \wedge l = i \wedge l_s = D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_s \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D - l_s + j_{sa}^{ik} - n - 1 \wedge$

$D \geq n < n \wedge l = l_k > 1 \wedge$

$j_{sa} \geq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, l_{k_1}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + l_k \wedge$

$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(i)} \sum_{j_s=1}^{(i)}$$

$$\sum_{j_{ik}=j_{sa}+l_{ik}-l_{sa}} \binom{l_{ik}+j_{sa}-i-l-j_{sa}^{ik}+1}{j_{sa}=l_{ik}+n+s-D-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j_{sa}^{ik}}^{n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - l_{k_2} - 1)!}$$

$$\frac{(n_i - 1)!}{(n_i + j_{sa} - n - l_{sa} - 1)! \cdot (n - j_{sa}^{ik})!}$$

$$\frac{(n_{ik} - l_{sa} - j_{ik} - 1)!}{(n_{ik} - j_{ik} - l_{sa} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + n_i - l_{sa} - 1)!}{(D + n_i + j_{sa} - n - l_{sa} - 1)! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!}$$

$$\sum_{k=1}^{(i)} \sum_{j_s=1}^{(i)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{j_{sa}^{ik}=j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_{ik}=n_i-j_{ik}-l_{k_1}+1}^{(i)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\sum_{k=1}^{()} \sum_{j_s=1}^{()} \frac{\sum_{j_{ik}=k+n-D}^{l_{ik}-1} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{()} \sum_{i=n+k}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-k_2} \sum_{n_{sa}=n-j_{sa}+1}^{(n_i-n_{ik}-1)!}}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-k_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-k_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(l_{ik}-j_{ik}-l_s+1)! \cdot (j_{ik}-j_{sa}^{ik})!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} - \sum_{k=1}^{()} \sum_{j_s=1}^{()}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_s)!}{(D + s - n - l_s)! (n - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} \leq l_s \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_2: 2 \leq \mathbb{k}_2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{Z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
 \end{aligned}$$

GÜLDENREINER

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_{sa})!} \cdot \sum_{j_{ik} = n_{is} + j_s - j_{sa}^{ik} + 1}^{n_{is} + j_s - j_{sa}^{ik}} \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{(n_{is} + j_s - j_{sa}^{ik}) - j_{sa}^{ik} + 1} \sum_{j_{sa}^{ik} = l_{sa} + n - D}^{(l_s + j_{sa} - l)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(n_{is} + j_s - j_{sa}^{ik} - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$n_{is} + j_s - j_{sa}^{ik} - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2 \geq 0 \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa}^{ik} = \sum_{l=1}^n \sum_{(j_s=l_s+n-D)}^{(n-l+1)} \sum_{j_{ik}=j_{sa}^{ik}-j_{sa}}^{(n-l+1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(n-l+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-j_{sa}^{ik})} \sum_{(j_s=j_{sa}+n-D)}^{(n_i+j_{sa}-j_{sa}^{ik})} \sum_{i=n+lk}^{(n_i+l_{sa}+1)} \sum_{n=n_{is}+j_s-l_{sa}-lk_1}^{(n_{is}+j_s-l_{sa}-lk_2)} \frac{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik} - lk_1 - lk_2)!}{(n_i - n - lk_1 - lk_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > n - n + 1 \wedge$$

$$2 \leq l \leq D + j_{sa} - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$2 \leq i_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} < j^{sa} < n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = lk > 0 \wedge$$

$$j_{sa} - j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, lk_1, j_{sa}^{ik}, \dots, lk_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + lk \wedge$$

$$lk_z: z = 2 \wedge lk = lk_1 + lk_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)} \right)$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = l_{sa} + n)}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}$$

$$\frac{(n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - j_s + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_1 - 1)!}{(j_s - 1)! \cdot (n_i - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j_s - 1)! \cdot (n_i - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1)} \sum_{(j^{sa} = l_s + j_{sa} - l + 1)}$$

GÜLDEN

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - l_{k_2})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(j_s - 1)! \cdot (n_{sa} + j^{sa} - n - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa} - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{k_1} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)} \right) \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

GÜLDÜSMEYA

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (D + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = l_s + j_{sa} - l + 1)}^{(l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜZ

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=1}^{(l_s - l - 1)} \sum_{\substack{\Delta \\ j_s = l_s + n - k}}^{(l_s - l - 1)} \frac{(l_s - l - 1)!}{(l_s - l - k)!} \cdot \\
 & \sum_{\substack{\Delta \\ n_{is} = l_{ik} + n - k}}^{(l_s - l - 1)} \sum_{\substack{\Delta \\ j_{sa} = l_{ik} + j_{sa} - l - j_{sa}^{ik} + 2}}^{(l_s - l - 1)} \frac{(n_i - j_s + 1)!}{(n_i - n_{is} - j_s + 1)!} \cdot \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

GÜLDÜMÜYA

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \frac{(l_s - l - 1)!}{(n_i - j_s + 1)! \cdot (n_i - l_{k_1} - l_{k_2} - j_s + 1)!} \cdot \frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - l_{k_1} - l_{k_2} - j_s + 1)! \cdot (n + l_{k_1} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > 0 - n + 1 \wedge$$

$$D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 2 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} - j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - l_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - l_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\frac{(n_{i_s}+1) \dots (n_{i_s}+\mathbb{k})}{(n_{i_s}+n+\mathbb{k}-1)}$$

$$\frac{(j_s-j_{ik}-\mathbb{k}_1) \dots (j_s-j_{ik}-\mathbb{k}_2)}{(j_s-j_{ik}-1)}$$

$$\frac{n_{ik}=n_{ik}-j_{ik}+1 \dots (j^{sa}+1)}{(j^{sa}-j_{ik}-1)}$$

$$\frac{(n_{i_s}-n_{i_s}-1)!}{(j_s-2)! \cdot (n_{i_s}-j_s+1)!}$$

$$\frac{(n_{i_s}-n_{i_s}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{i_s}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)}$$

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$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k2})}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa} - l_{k1})!}{(n_i - n - l_{k1} - l_{k2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa} - l_{k1})!}$$

$$\frac{(l_s - l + 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - \dots)!}{(D + j^{sa} + s - n - \dots - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq l \leq D + l_s + j_{sa} - n - l$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \dots - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s$

$l_{k1} - j_{sa}^{ik} + 1 \leq l_{k1} \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l = \dots = 0 \wedge$

$j_{sa} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, l_{k1}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 5 \wedge j_{sa} = s + l_k \wedge$

$l_{kz}: z = 2, \dots, k = l_{k1} + l_{k2} \Rightarrow$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_{sa})}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-k_1)} \frac{(n_i-1)!}{(j_s-2)! (n_i-n_{is}-1)!} \cdot \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! (n_i-n_{ik}-j_{ik}-k_1)!} \cdot \frac{(n_{ik}-n_{sa}-k_2-1)!}{(j_{sa}-j_{ik}-1)! (n_{ik}+j_{sa}-n_{sa}-j_{sa}-k_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l-j_{sa}+1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-k_2)}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - l_{ik} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - j_{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{l_s + j_{sa}^{ik} - l} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \\
 & \sum_{j_{ik} = l_{sa} + n + j_{sa}^{ik} - D - j_{sa}}^{l_s + j_{sa}^{ik} - l} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{()} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^n \sum_{(n_{is} = n_{is} + \mathbb{k}_1 - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{()} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$j_{sa}^{ik} = \sum_{l=1}^{l+1} \sum_{j_s=l_s+n-D}^{j_s=j_{ik}, j_s} \binom{l+1}{j_s} \binom{l_{sa}+j_{sa}^{ik}-l}{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}} \binom{()}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \cdot \sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{()} \sum_{j_{ik}=l_s+j_{sa}^{ik}-l}^{()} \sum_{j_{ik}=l_s+j_{sa}^{ik}-l}^{()} \sum_{n_i=0}^n \sum_{n_{is}=n+k-j_s+1}^{()} \sum_{n_{is}=n+k-j_s+1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-k_2}^{()} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - l_i + 1 \wedge 2 \leq l_i < D + l_{ik} - j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge 2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa} - j_{sa}^{ik} - j_{sa} \wedge j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge D \geq n < n \wedge l = k > 0 \wedge j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \left(\sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{ik}-j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{(n_{is}+j_s-\mathbb{k}_1)}^{(n_{ik}+j_{ik}-\mathbb{k}_1-j_s+1)} \sum_{(n_{ik}-\mathbb{k}_2-j_{ik}+1)}^{(n_{sa}-j_{sa}+1)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{ik}+j_{ik}-\mathbb{k}_2)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} + \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \sum_{j_{ik}=l_s+j_{sa}^{lk}-l+1}^{l_{ik}-l+1} \binom{(\quad)}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{\binom{n_i-1}{j_s-2} (n_i-n_{is}+1)!}{(n_{is}-n_{ik}-l_{k_1}-1)!} \cdot \frac{(j_{ik}-j_s-1)! (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!}{(j^{sa}-j_{ik}-1)! (n_{ik}+j_{ik}-n_{sa}-j^{sa}-l_{k_2})!} \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \left(\sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{j_s=l_s+n-D}^{(n_i-j_s+1)} \right) \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{j^{sa}=l_{sa}+n-D}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_{sa}=n-j_{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(n_{sa} + j_{sa}^{lk} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa}^{lk} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s = l_s + n - D)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} - l + 1} \sum_{(j^{sa} = l_{ik} + j_{sa} - l - j_{sa}^{ik} + 2)}^{(l_{sa} - l + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_s - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (j_{sa} + j_s - j_s)!} + \\
 & \sum_{k=l}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{j_{sa}=l_{sa}+1}^{j_{sa}+1} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDENMYA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l_s}^{(l_s-1)}$$

$$\sum_{j_{ik}=j_{ik}^{l-1}}^{l_{ik}-l+1} \sum_{j_{sa}=j_{sa}^{l-1}}^{(l_{sa}-j_{sa}^{l-1})}$$

$$\sum_{n_i=n_i^{l-1}}^n \sum_{n_{is}=n_{is}^{l-1}}^{(n_{is}^{l-1})}$$

$$\sum_{n_{ik}=n_{ik}^{l-1}}^{(n_{ik}^{l-1})} \sum_{n_{sa}=n_{sa}^{l-1}}^{(n_{sa}^{l-1})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

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$$\left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} (j^{sa}=j_{sa}-j_{sa}^{ik})$$

$$(n_i + 1)$$

$$+ \mathbb{k} (n_{is} = n + \mathbb{k} - 1)$$

$$(\cdot)$$

$$= n_{is} + j_s - \mathbb{k}_1 (n_{sa} - \mathbb{k}_2)$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - s - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n + \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > n + 1 \wedge$$

$$2 \leq l \leq D + j_{sa} - l_{sa} \wedge$$

$$2 \leq j_{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} = j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} = n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^l\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_{Z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{(l_{sa}+n-D-j_{sa})} \\
 &\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-j_{ik}^{ik}}^{n_{is}+j_s-j_{ik}^{ik}-l_{ik_1}+j_{ik}^{ik}-l_{ik_2}} \sum_{(n_{sa}=n-j_{sa}^{sa})}^{(n_i-j_s+1)} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 &\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - k_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
& \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{(\cdot)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} j_s, j_{ik}, j^{sa} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\ &\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \\ &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \end{aligned}$$

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$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{l=1}^{j_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_s} \sum_{j_{ik}=n_{is}+j_s-j_{ik}-k_1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_i=n+k}^{n_i-j_s+1} \sum_{n_{is}=n+k-j_s+1}^{n_i-j_s+1} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2} \frac{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D - n > l_s \wedge l_s > D - n + 1 \wedge 2 \leq l \leq D - l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge 2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z^S \Rightarrow j_s, j_{ik}, j_{sa}} = \left(\sum_{l=1}^{(l_s - n - D - j_{sa})} \sum_{j_s = n - D}^{(j_s = n - D)} \sum_{j_{ik} = l}^{l_{ik} - l + 1} \sum_{j_{sa} = n - j_{ik} - D - j_{sa}}^{(j_{sa} = n - j_{ik} - D - j_{sa})} \sum_{n_{is} = n_{is} + \mathbb{k}}^{n_{is} + \mathbb{k} (n_{is} = n + \mathbb{k} - j_s + 1)} \sum_{n_{ik} = n_{ik} - j_{ik} - \mathbb{k}_1}^{n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2} \sum_{n_{sa} = n - j_{sa} + 1}^{(n_{sa} = n - j_{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{ik}^{sa})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-j_{sa}^{ik}+j_{ik}^{sa}-j_{sa}^{sa}-k_2}^{(n_{is}+j_s-j_{ik}-j_{sa}^{ik}+j_{ik}^{sa}-j_{sa}^{sa}-k_2)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}^{sa}}^{(n_{ik}=n+k_2-j_{ik}^{sa})} \sum_{(n_{sa}=n-j_{sa}^{sa})}^{(n_{sa}=n-j_{sa}^{sa})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{sa} - j_{ik}^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j_{sa} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \\
 & \left(\sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}^{(l_{sa}+n-D-j_{sa})} \right. \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j_{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \\
 & \left. \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \right)
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (D + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{sa} + n - D - j_{sa} + 1)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(l_{ik} - l + 1)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(l_{sa} - l + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right)^{\sum_{k=l}^{l+1} \binom{n}{n_{sa}+n-D-j_{sa}+k}}$$

$$\sum_{n_i=n+k}^n \binom{n_i-j_s+1}{n_{is}=n+k-j_s+1} \sum_{k_1=k_2=0}^{j_{ik}=j_s+k-1} \binom{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D - n < l_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D - l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 5 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

(Large diagonal watermark: GÜLDÜNKAYA)

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa} = \sum_{k=1}^{(l_s + j_{sa})} \sum_{(j_s = n - D)}^{(k - j_{sa}^{ik} + 1)}$$

$$j_{ik} = j_{sa}^{ik} \sum_{(j_{sa} = l_{ik} + j_{sa} - D - j_{sa}^{ik})}^{(n - (l_s + j_{sa}))}$$

$$n_{i_s} = \sum_{\mathbb{k}}^{(n - \mathbb{k} - j_s + 1)}$$

$$n_{i_s + j_{ik} - \mathbb{k}_1} = \sum_{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}^{(n - \mathbb{k}_1 - j_s + 1)}$$

$$n_{ik} = \sum_{(n_{sa} = n - j_{sa} + 1)}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!}$$

$$\frac{(n_{i_s} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{i_s} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-k_1}^{(n_{is}+j_s-j_{ik}-k_1)} \sum_{(j_{ik}-n_{sa}-k_2)}^{(j_{ik}-n_{sa}-k_2)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}}^{(n_{ik}=n+k_2-j_{ik})} \sum_{(n_{sa}=n-j^{sa}+)}^{(n_{sa}=n-j^{sa}+)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$

$s > 5 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - k_2 - 1)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \\
 & \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = l_{ik} + n + j_{sa} - D - j_{sa}^{ik})}^{()} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{()} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - k_2)}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜZMÜŞA

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\sum_{j_s=2}^{j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} ()$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\begin{aligned}
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik} = l_s + j_s - l + 1}^{(l_s - l + 1)} \sum_{(j^{sa} = j_{ik} - l_s - j_{sa}^{ik})}^{(l_s - l + 1)} \\
 & \sum_{n_i = n + k}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{(n_i - j_s + 1)} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
 \end{aligned}$$

GÜLDÜNYA

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-i)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - n_{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!} \cdot \frac{(n_{ik} - k_1 - k_2)!}{(n_{ik} - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - 1)!}{(D + j_s + s - l_i - 1)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l_s < D - n + 1$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l_s = 0 \wedge$$

$$j_{sa} \leq j_{sa}^i \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$\{s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_{z \mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{()} \\
 &\sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} - l + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{ik}^{sa})}^{()} \\
 &\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 &\sum_{n_{ik} = n + k_2 - j_{ik}^{sa}}^{n_{is} + j_s - j_{ik}^{sa} - j_{ik}^{sa} + j_{ik}^{sa} - k_2} \sum_{(n_{sa} = n - j^{sa})}^{(n_i - j_s + 1)} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 &\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{sa} - j_{ik}^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 &\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \\
 &\sum_{j_{ik} = l_{ik} + n - D}^{l_s + j_{sa}^{ik} - l} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{()} \\
 &\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}
 \end{aligned}$$

GÜLDÜZYA

$$\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 - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$

$s > 5 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$

$$fz^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{\binom{(\)}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(j_s - j_{sa}^{ik} + 1)} \sum_{j_{ik}=j_{sa}^{ik}-1}^{(j_s - j_{sa}^{ik} - 1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(j_s - j_{sa}^{ik})} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(l_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
\end{aligned}$$

$$n_{sa} \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa}^{ik} = \sum_{l=1}^n \sum_{(j_s=l_s+n-D)}^{(n-l)} \dots$$

$$j_{ik} = l_{ik} \dots (j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_s-j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}-k_2)}^{(n_{ik}+j_{ik}-j_{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n)} \sum_{(j^{sa}=j_s-j_{sa}^{ik})}^{(n_i+l+1)} \sum_{(n+l)}^{(n+l)} \sum_{(n+l)}^{(n+l)} \frac{(n_i + j_{ik} + j_{sa}^s - i_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l_s > n - n + 1 \wedge$$

$$2 \leq l \leq D + j_{sa} - l_{sa} \wedge$$

$$2 \leq i_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} = j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} < j^{sa} < j_s + j_{sa} - s \wedge$$

$$l_{ik} + j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_s - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_{z^S \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_s+n-D)}^{(l_s+j_{sa}-l)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{is}+j_s-j_{ik}-l_{sa}}^{(n_{is}+j_s-j_{ik}-l_{sa})} \sum_{(n_{sa}=n-j^{sa})}^{(n_{sa}=n-j^{sa})} \\
 &\frac{(n_i - n_{sa} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 &\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{sa}-l+1)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(\quad)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\quad)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

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$$j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_{sa}+n-D)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot \sum_{l=1}^{(j_s + j_{sa} - l)} \sum_{j_{ik}=j_s - l_{ik} - l_{sa} (j^{sa} = j_{sa} + n - D)} \sum_{n_i=n+l_k}^{(n_i - j_s + 1)} \sum_{(n_{is}=n+l_k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(j_{ik}=n_{is} + j_s - j_{ik} - l_{k_1} (n_{sa}=n_{ik} + j_{ik} - j^{sa} - l_{k_2}))}^{()}$$

$$\frac{(j_s + j_{sa} - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n_{i_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D > l_s \wedge n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D - l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s = j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa} = \sum_{k=l}^{\mathbb{k}-j_{sa}^{ik}+1} \sum_{j_s=n-D}^{n-D} \sum_{j_{ik}=j_{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-1} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{n-l_{sa}+1} n_{i_s+\mathbb{k}}^{\mathbb{k}}(n_{is}=n+\mathbb{k}-j_s+1) n_{ik+\mathbb{k}_1}^{j_{ik}-\mathbb{k}_1}(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2) n_{ik+\mathbb{k}_2}^{j_{sa}-j_{ik}+1}(n_{sa}=n-j_{sa}+1) \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}^{ik}} \sum_{(n_{sa}=n-j^{sa}-k_2)}^{n_{is}+j_s-j_{ik}^{ik}-k_1+j_{ik}^{ik}-k_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{ik} - n_{sa} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (l - 2)!}$$

$$\frac{(D - \mathbb{k}_1)!}{(D + j_{sa}^s - n - l_{sa})! \cdot (n - l_{sa} - j_{sa}^s - \mathbb{k}_2)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq D + n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - l_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \dots > 0 \wedge$$

$$j_s \leq j_{sa}^l - \dots < j_{sa}^{ik} < j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^s, \dots, j_{sa}^s\} \wedge$$

$$s > 5, \dots = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \dots = \mathbb{k}_1 + \dots \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}}^S = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{(\quad)}$$

$$\begin{aligned}
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{i_s} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{i_k} = n + \mathbb{k}_2 - j_{i_k} + 1}^{n_{i_s} + j_s - j_{i_k} - \mathbb{k}_1} \sum_{(n_{s_a} = n - j^{s_a} + 1)}^{(n_{i_k} + j_{i_k} - j^{s_a} - \mathbb{k}_2)} \\
& \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
& \frac{(n_{i_s} - n_{i_k} - \mathbb{k}_1 - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} + j_s - j_{i_k} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - j^{s_a} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{s_a} + j^{s_a} - n - 1)!}{(n_{s_a} + j^{s_a} - n - 1)!} \cdot \\
& \frac{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!}{(n_{i_k} + j_{i_k} - j_{s_a}^{i_k} - 1)! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot \\
& \frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j_{i_k} - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!} \cdot \\
& \sum_{k=l} \sum_{(j_s = j_{i_k} - j_{s_a}^{i_k} + 1)}^{()} \\
& \sum_{j_{i_k} = l_{s_a} + n + j_{s_a}^{i_k} - D - j_{s_a}}^{l_s + j_{s_a}^{i_k} - l} \sum_{(j^{s_a} = j_{i_k} + l_{s_a} - l_{i_k})}^{()} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{i_s} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{i_k} = n_{i_s} + j_s - j_{i_k} - \mathbb{k}_1} \sum_{(n_{s_a} = n_{i_k} + j_{i_k} - j^{s_a} - \mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{i_k} + j_{s_a}^s - j_s - s - j_{s_a}^{i_k})!}
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$fz \Rightarrow j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}=j_{ik}+k}^{(n-j_{sa}+1)} \sum_{j_{ik}=j_{sa}^{ik}-1}^{(n+j_{sa}^{ik}-l_{sa}+1)} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{(n)} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \sum_{n_{sa}=n-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_{sa}-l_{ik})}^{(n-l+1)}$$

$$\frac{(n-l+1)!}{(n+l_{ik}(n_{is}=n-l_{ik}+1))!}$$

$$\frac{(n_{is}=n_{is}+j_{sa}^{ik}-l_{k_1}-l_{k_2})!}{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - l_{k_1} - l_{k_2})!}$$

$$\frac{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!}{(l_s - l - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} - 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} = j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_s + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} - j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik_1}}^{n_{is}+j_s-j_{ik_1}-l_{ik_1}+j_{ik_2}-l_{ik_2}} \sum_{(n_{sa}=n-j^{sa})}$$

$$\frac{(n_i - n_{ik_1} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik_1} - n_{ik_2} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$$

$$s > 5 \wedge s = \dots + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(l_s+j_{sa}-l)}^{(j_{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - k_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
& \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
\end{aligned}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} \cdot \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{()} \sum_{j_{ik} = j^{sa} + l_{ik}}^{(l_s + j_{sa} - l)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{()} \frac{(l_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$n_{sa} \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa}^{ik} = \sum_{l_s=l}^n \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{n-j_{sa}^{ik}+1} \sum_{j_{ik}^{sa}+l_{ik}-l_{sa}=l_{ik}+n+s-D-j_{sa}^{ik}}^{n-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_i-j_s+1} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_s+j_{sa}-l)} (j_{sa}=l_{ik}+n+1-D-j_{sa}^{ik}) \sum_{i=1}^n (n_i+1) \sum_{n+l}^n (n_{is}=n+1+l+1) \sum_{n=n_{is}+j_s-l_{k_1}}^{(\cdot)} (n_{sa}^{i_1}=n_{sa}-l_{k_2}) \frac{(n_i + j_{ik} + j_{sa}^{i_1} - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^{i_1} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > n - n + 1 \wedge$$

$$2 \leq l \leq D + j_{sa}^{ik} - l_{ik} \wedge$$

$$2 \leq i_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa}^{i_1} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{i_1} < j^{sa} - n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{i_1} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = l_{k_1} > 0 \wedge$$

$$j_{sa} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}} \sum_{(n_{sa}=n-j^{sa}+k_2)}^{(n_{is}+j_s-j_{ik}-k_1)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot \sum_{l=1}^{j_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_s} \binom{j_s-l}{j_s-j_{ik}+l} \binom{j_s-l}{j_s-j_{sa}^{ik}+l} \sum_{j_{ik}=l}^{n-D} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{j_s-l} \binom{n_i-j_s+1}{n_i=n+l_k} \sum_{n_{is}=n+l_k-j_s+1}^{n_i-j_s+1} \binom{n_i-j_s+1}{n_{is}=n+l_k-j_s+1} \sum_{j_{ik}=n_{is}+j_s-j_{ik}-k_1}^{n_i-j_s+1} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-k_2}^{n_i-j_s+1} \frac{(n_i - n_{is} - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n_{is} - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D - n + 1 \leq l_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq l \leq D - l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fzS \Rightarrow j_s, j_{ik}, j_{sa} = \sum_{j_s=1}^{(l_s - n - D - j_{sa}^{ik})} \sum_{j_{ik}=1}^{(n - D)} \sum_{j_{sa}=1}^{(n - D)} \sum_{l_{ik}=1}^{(j_{ik} - 1)} \sum_{l_{sa}=1}^{(j_{sa} - l_{ik})} \sum_{n_{is}=1}^{(n_{is} + \mathbb{k} - j_s + 1)} \sum_{n_{ik}=1}^{(n_{ik} + j_{ik} - j_{sa} - \mathbb{k}_2)} \sum_{n_{sa}=1}^{(n_{sa} - j_{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-l_{s1}}^{n_{is}+j_s-j_{ik}-l_{s1}+j_{ik}-l_{s2}-k_2} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}}^{n_{ik}} \sum_{(n_{sa}=n-j^{sa}+j_{ik}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - k_2)!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\}$

$s > 5 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$

$$f_z^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz \mathcal{S} \Rightarrow j_s^{sa} = \sum_{k=l}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{(j_s=2)}$$

$$\sum_{j_s^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j_s^{sa} = j_{sa} + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s-l+1)}$$

$$\sum_{n+l_k}^{(n_i-j_s+1)} \sum_{(n_i-k)}^{(n_i-k-j_s+1)} \sum_{n_{is}+j_{sa}^{ik}-k_1}^{(n_{ik})} \sum_{(n_{ik})}^{(n_{ik}-k_2)} \sum_{n_{ik}+k_2-j_{ik}}^{(n_{sa}=n-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

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$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_{sa})}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{sa}-l_{k_2})}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa} - l_{k_1})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa} - l_{k_1})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - \dots)!}{(D + j^{sa} + s - n - \dots - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$((D \geq n < n \wedge l \neq i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa} + 1 > l_s \wedge j_{sa} + j_{sa}^{ik} - j_{sa} > j_s$

$(D \geq n < n \wedge l \neq i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$

$D \geq n < n \wedge l = k > 0 \wedge$

$j_{sa} - j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 5 \wedge s = s + k \wedge$

$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$

$$\begin{aligned}
 f_{z^S \Rightarrow j_s, j_{ik}, j^{sa}} &= \left(\sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{(j_{ik} - j_{sa}^{ik} + 1)} \right. \\
 &\quad \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = j_{sa})}^{(l_s + j_{sa} - l)} \\
 &\quad \sum_{n_i = n + k}^n \sum_{(n_{is} = n - j_s + 1)}^{(n_i - j_s + 1)} \\
 &\quad \sum_{n_{is} + j_s - j_{ik} - k_1}^{(n_{is} + j_s - j_{ik} - k_1)} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{sa} = n - j^{sa} + 1)} \\
 &\quad \sum_{n_{ik} = n + k_2 - j_{ik}}^{(n_{ik} = n + k_2 - j_{ik})} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{sa} = n - j^{sa} + 1)} \\
 &\quad \frac{(n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - j_s + 1)!} \\
 &\quad \frac{(n_{ik} - k_1 - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - k_1)!} \\
 &\quad \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{is} + j_s - j_{ik} - k_2)!} \\
 &\quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\quad \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\quad \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\quad \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\quad \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}^{(l_s - l + 1)} \\
 &\quad \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1)} \sum_{(j^{sa} = l_s + j_{sa} - l + 1)}^{(l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1)}
 \end{aligned}$$

GÜLDÜZYA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(j_s - l - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{sa} + j_s - n - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \right. \\
 & \left. \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(n_i-j_s+1)} \right) \right) \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=j_{sa}+2)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (D + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = 2)} \\
 & \sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = l_s + j_{sa} - l + 1)}^{(l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜZ

A

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l+1)} \sum_{(j_s=2)}^{(j_s=2)}$$

$$\sum_{(j_s=2)}^{(l+1)} \sum_{(j_s=2)}^{(l+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(n)} \sum_{(j_{sa}=l_{ik}+j_{sa}^{ik}-j_{sa}^{ik}+2)}^{(n_i-j_s+1)}$$

$$\sum_{n_i=n+l_k}^{(n)} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{j_{ik}-l_{k_1}}^{(n_{ik}+j_{ik}-j_{sa}-l_{k_2})} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_{sa}=n-j_{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - l_{k_2})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

GÜLDÜMNA

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \sum_{(j_{sa} - l)}^{()} \sum_{(j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} - l_{sa} - l + 1)}^{()} \sum_{(n_i - j_s + 1)}^{()} \sum_{(n_{ik} = n_{is} + j_{sa}^{ik} - l_{k_1} - l_{k_2} - j_s + 1)}^{()} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - l_{k_2})}^{()} \frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - l_{k_1} - l_{k_2} - j_s - s - j_{sa}^{ik})! \cdot (n + l_{k_1} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_{sa} \leq l + j_{sa} - n \wedge$$

$$1 \leq j_s = j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq l < n \wedge l = l_k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + l_k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S \Rightarrow j_s, j_{ik}, j^{sa} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} ()$$

$$\sum_{n_i=n+l}^n \sum_{(n_i+j_s+1)} (n_i+j_s+1)$$

$$\sum_{n_i=n+l}^{n_i+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j^{sa})} (n_{ik}+j_{ik}-j^{sa})$$

$$\frac{(n_i - n_{is})}{(i_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - i_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(j^{sa} - \dots - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - \dots - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

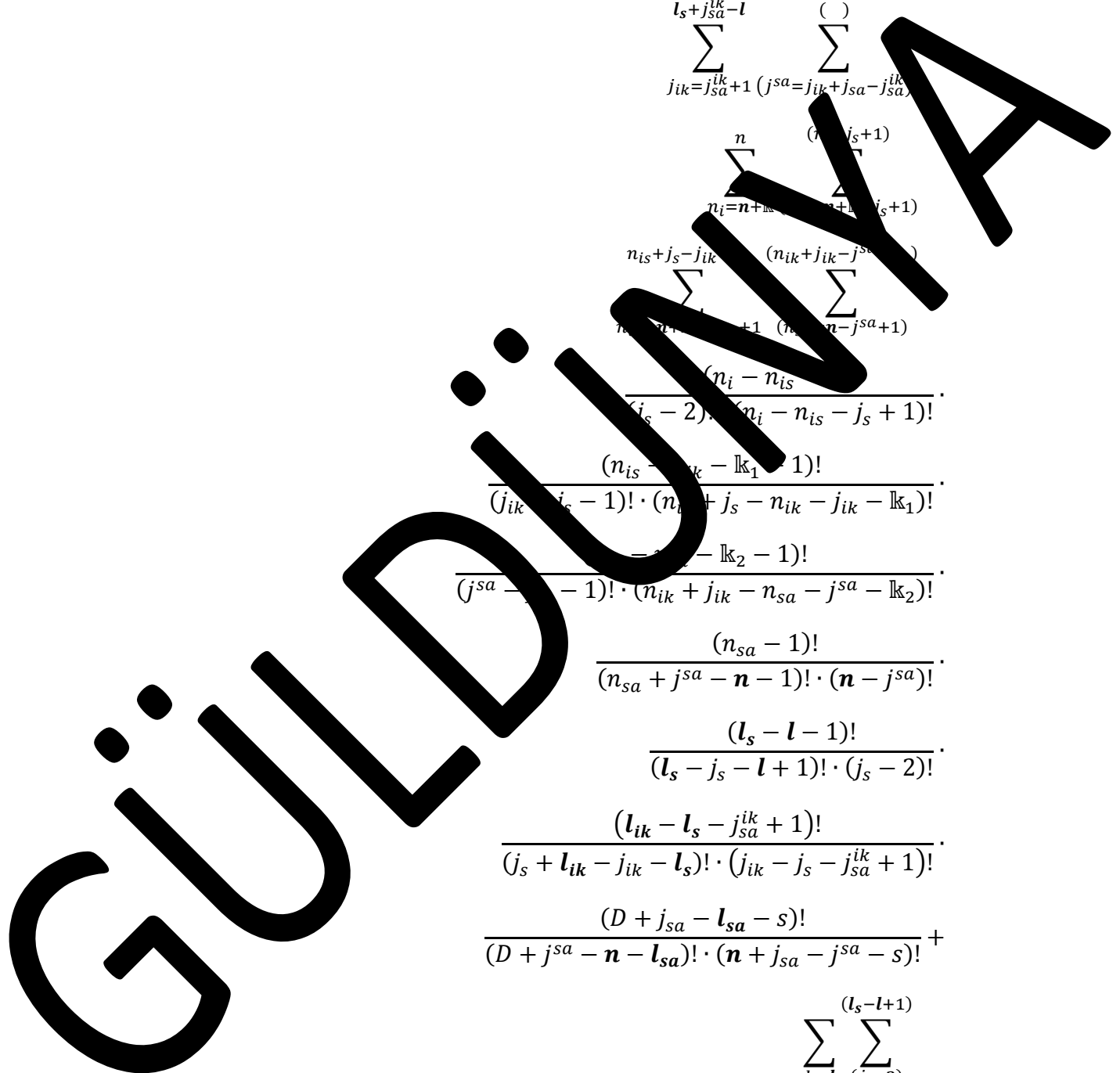
$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} ()$$



$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} + j_s - n - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (j^{sa} - 1)!} \cdot \\
 & \frac{(l_{ik} - j_s - 1)!}{(n_{sa} + j_s - n - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{sa} + j_s - n - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_s - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = \dots + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_s)}^{()} (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - \mathbf{n} - l_{sa})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\mathbf{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}
 \end{aligned}$$

GÜLDÜZMÜŞA

$$\begin{aligned}
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (j_{sa} - j_s - l_{sa} + 1)!} + \\
 & \frac{(j_{ik} - j_{sa}^{ik} + 1)!}{\sum_{i=2}^{j_{ik} - j_{sa}^{ik} + 1} \binom{l_s + j_{sa}^{ik} - i}{j_{ik} = i + 1} \binom{l_{sa} - l + 1}{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1}} \cdot \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \cdot \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜMBA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{s=2}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}-l+1}^{l_{ik}-l+1} (j_{sa}^{ik} + j_{sa} - j_{sa}^{ik} + 1)$$

$$\sum_{n_i=n_i}^{n_i} (n_{is} = n + k - j_s + 1)$$

$$\sum_{n_{ik}=n_{ik}-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2} (n_{ik} + j_{ik} - j^{sa} - k_2)$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

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$$\left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{sa}^{ik}-j_{sa}^{ik})}^{(\)}$$

$$(n_i + 1)$$

$$+ \mathbb{k} (n_{is} = n + \mathbb{k} - 1)$$

$$(\)$$

$$= n_{is} + j_s - j_{sa}^{ik} - \mathbb{k}_1 (n_{sa} - j_{sa}^{ik} - j_{sa} - \mathbb{k}_2)$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s + j_s - l + 1)! \cdot (j_s - 2)!}$$

$$(D - l_i)!$$

$$(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!$$

$$D \geq n < n \wedge l \neq \dots \wedge l_{sa} \leq D + j_{sa} - n$$

$$1 \bullet j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j_{sa} + j_{sa}^{ik} - j_{sa}$$

$$+ j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \dots + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > \dots + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j_{sa}+j_{ik}-l_{k_2})}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!}$$

$$\frac{(n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j_{sa} - l_{k_2})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq (n + j_{sa} - s))$$

$$D \geq n < n \wedge l_{ik} - \mathbb{k}_1 > 0 \wedge$$

$$j_{sa} \geq l_{ik} - 1 \wedge j_{sa}^{ik} \leq l_{ik} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 0 \wedge s = s + 1$$

$$\mathbb{k}_z: z = 2, \dots, l = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{\binom{()}{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!}$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j^{sa} - j_{ik} - 1)!}$$

$$\frac{(l_{ik} - j_{sa} - 1)!}{(l_{ik} - j_{sa} - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa} - 1)!}{(l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_s - j_{sa} + 1)!}$$

$$\left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +$$

$$\left(\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

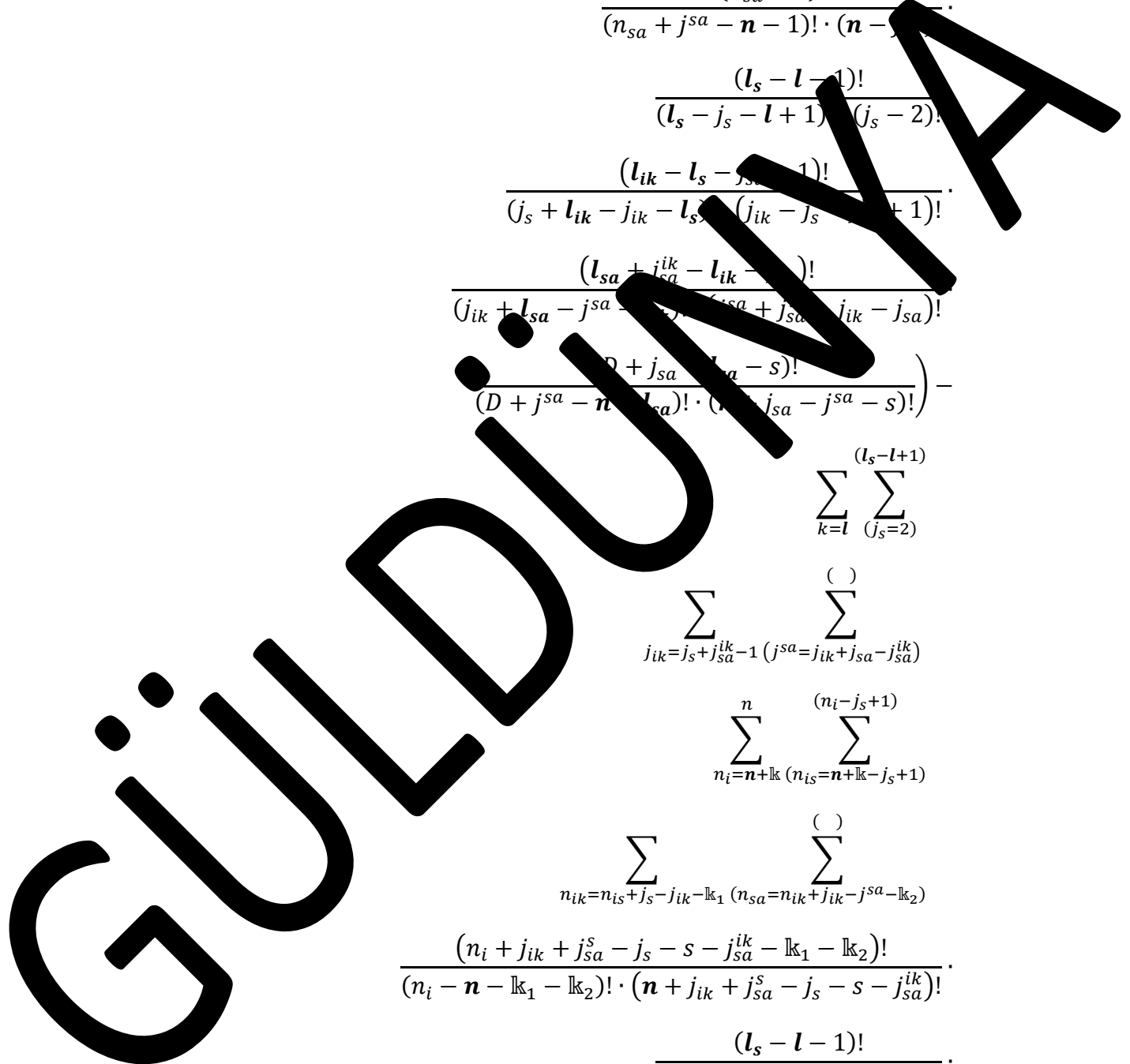
$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$



$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_{sa}^{ik}, j_{sa}} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = l_{sa} + n - D)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=0}^{(l_s - l + 1)} \sum_{j_s=2}^{(j_s - 1)} \sum_{j_{sa}=l_s + j_{sa} - l + 1}^{(j_s + j_{sa}^{ik} - j_{sa})} \sum_{j_{sa}=n - j^{sa} + 1}^{(j_s + 1)} \\
& \sum_{n_{is}=n_{ik} - \mathbb{k}_1}^{(n_{is} + \mathbb{k} - j_s + 1)} \sum_{n_{ik}=n_{ik} - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{n_{sa}=n - j^{sa} + 1}^{(n_{sa} - j_{sa} - 1)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
\end{aligned}$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{sa}+n-1)}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\cdot)} \sum_{(n_{ik}+j_{ik}-j^{sa}=n-1)}^{(\cdot)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa} - j_{sa}^{ik})!}$$

$$\frac{(n - j_s - \mathbb{k} + 1)! \cdot (j_s - 2)!}{(n - j_s - \mathbb{k} + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - 1)!}{(D - 1 + s - l_i - j_s)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l_s \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} - j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + l_s - n < l_{sa} - D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$1 \leq j_s < j_{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 f_{zS \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\frac{n_{is}+j_s-j_{ik}-j_{sa}^{ik}+j_{ik}-j_{sa}^{sa}-k_2}{n_{ik}=n+k_2-j_{ik}-j_{sa}^{ik}} \frac{(n_{is}+j_s-j_{ik}-j_{sa}^{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-j_{ik}-j_{sa}^{ik}-k_1-1)!} \\
 &\frac{(n_{ik}-n_{sa}-k_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j^{sa}-k_2)!} \\
 &\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \\
 &\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 &\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} - \\
 &\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left((D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge \right.$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa}^{ik} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$\left. \geq n - l_s \wedge I = \mathbb{k} > 0 \wedge \right.$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS \Rightarrow j_s, j_{ik}, j^{sa} = \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}+j_s+1)}^{(n_{ik}+j_s+1)}$$

$$\sum_{n_{ik}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{sa}-j^{sa}+1)}^{(n_{sa}-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)! \cdot (n_i - n_{is} - j_s + 1)!}{(n_i - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - \mathbb{k} - \mathbb{k}_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)}$$



$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j^{sa} - 1)!} \cdot \\
 & \frac{(l_{ik} - j_{sa} - 1)!}{(l_{ik} - j_{sa} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa} - 1)!}{(l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
 & \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) + \\
 & \left(\sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right) \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa} - s)! \cdot (D + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = 2)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = l_s + j_{sa} - l + 1)}^{(l_{ik} + j_{sa} - l - j_{sa}^{ik} + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=l}^{(l+1)} \sum_{(j_s=2)}^{(j_s=2)}$$

$$\sum_{n_i=l_{ik}+n}^{(n_i=l+1)} \sum_{(j_{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+2)}^{(n_i-j_s+1)}$$

$$\sum_{n_i=n+k}^{(n_i=n+k)} \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot$$

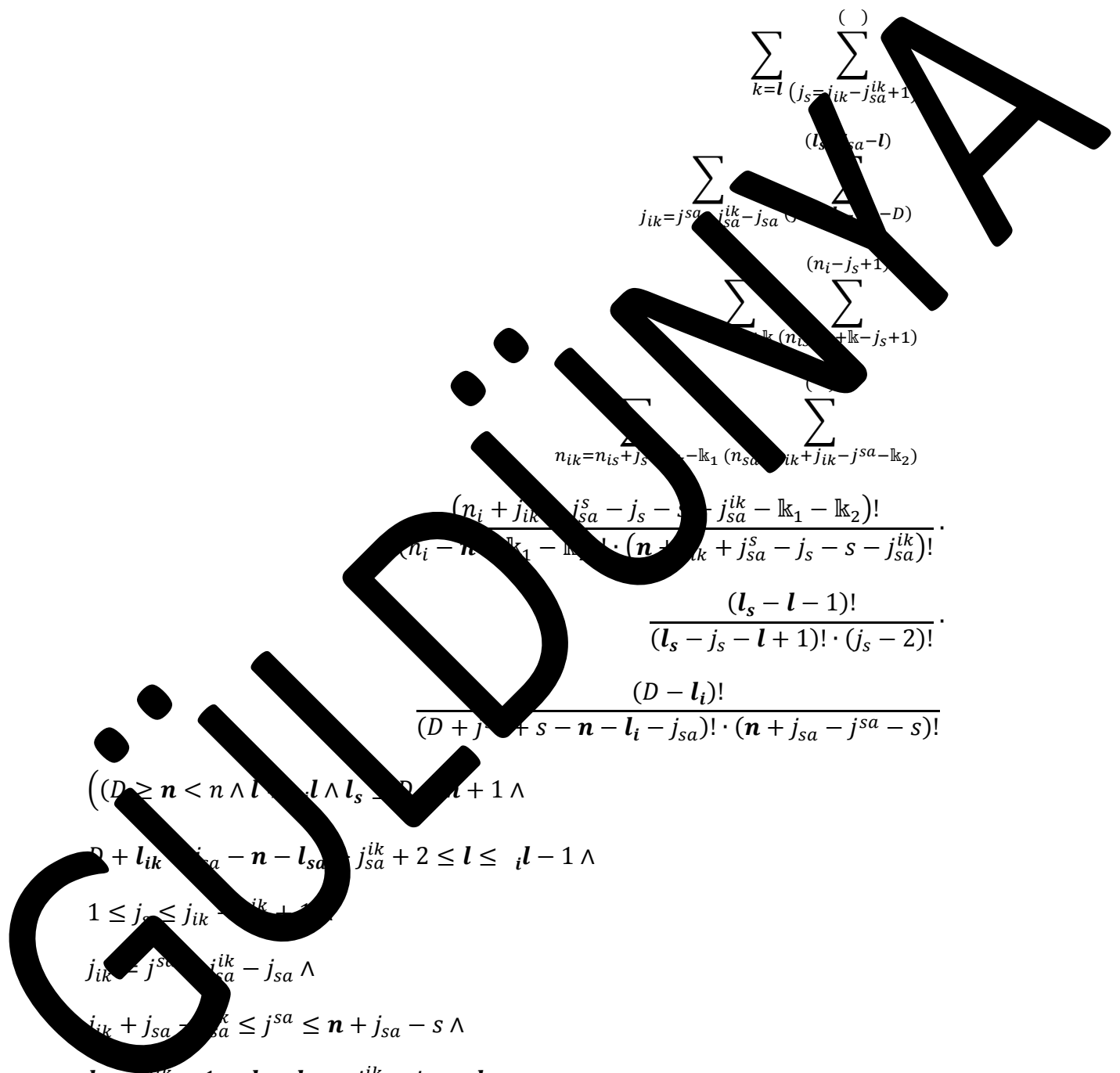
$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \frac{(l_s - l - 1)!}{(n_i - j_s + 1)!} \cdot \frac{(n_i - l_{k_1} - l_{k_2} + k - j_s + 1)!}{(n_{sa}^{ik} + j_{ik} - j_{sa} - l_{k_1} - l_{k_2})!} \cdot \frac{(n_i + j_{ik} - j_{sa} - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - l_{k_1} - l_{k_2} + k + j_{sa} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

- $((D \geq n < n \wedge l = l \wedge l_s = D - n + 1 \wedge$
- $D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 2 \leq l \leq l - 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{ik} = j_{sa}^{sa} + j_{sa}^{ik} - j_{sa} \wedge$
- $j_{ik} + j_{sa} - j_{sa}^{ik} \leq j_{sa} \leq n + j_{sa} - s \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$
- $D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik}) \vee$
- $(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$
- $D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 2 \leq l \leq l - 1 \wedge$



$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} S_{\Rightarrow j_s, j_{ik}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\ &\sum_{j_{ik}=l_{ik}+n-D}^{k-l+1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)} \\ &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\ &\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\ &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{l=1}^{j_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s+l} \sum_{j_{ik}=j_s+l_{sa}-j_{sa}^{ik}-j_{sa}}^{j_{ik}-j_s} \sum_{j^{sa}=l_{sa}+n-D}^{j^{sa}+j_{sa}-l} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{j_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()} \frac{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D > n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$

$D + l_s + j_s - n - l_{sa} + 1 \leq l \leq j_s - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa}^{l-l+1}$$

$$l_{sa} + j_{sa}^{ik} - l - j_{sa} + 1$$

$$= l_{sa} + n + j_{sa}^{ik} - D - j_{sa} - j_{sa}^{ik}$$

$$n_i = n + k \quad (n_{is} = n + k - j_s + 1)$$

$$n_{is} + j_s - k - k_1 \quad (n_{ik} + j_{ik} - j_{sa} - k_2)$$

$$n_{ik} = n + k_2 - j_{ik} + 1 \quad (n_{sa} = n - j_{sa} + 1)$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\cdot)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa} - j_{sa}^{ik})!}$$

$$\frac{(n_i - j_s - l - 1)!}{(n_i - j_s - l - 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l)!}{(D + j_s + s - l_i - l)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$

$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} > l_s \wedge l_{sa} \wedge j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_s - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$

$D \geq n < n \wedge l = k > 0 \wedge$

$1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 5 \wedge s = s + k \wedge$

$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$

$$\begin{aligned}
 f_{Z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)}^{(l_{sa}+n-D-j_{sa})} \\
 &\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j_{sa}+j_{ik}-k_2)}^{(n_{is}+j_s-j_{ik}-k_1)} \\
 &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - 1)!} \\
 &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 &\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - k_2)!} \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - k_2 - 1)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j_s=2)}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s - l_{sa})!} \cdot \sum_{k=l}^{(l_s-l+1)} \sum_{i=0}^{(n_{sa}-j_{sa}+1)} \sum_{j_{ik}+j_{sa}^{ik}-1}^{(n_{sa}-j_{sa}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_{ik} + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

- $(n > n \wedge l \neq i) \wedge l_s \leq D - n + 1 \wedge$
- $2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, i\}$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \right)$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \binom{(\quad)}{(\quad)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n_{sa} - l_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{-l+1} \sum_{(j_s=2)}^{-l+1} \\
 & \sum_{j_{sa}^{ik} - l + 1}^{l_{ik} - l + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \right. \\
 & \quad \left(\sum_{k=l}^{(l_{sa} + n - D - j_s)} \sum_{(j_s=2)}^{(n_i - j_s + 1)} \right. \\
 & \quad \sum_{j_{ik}=l_{ik}-D}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j_s=2)}^{(l_{ik} + j_{sa} - j_{sa}^{ik} + 1)} \\
 & \quad \sum_{(j_s=2)}^{(n_i - j_s + 1)} \sum_{(n_{ik} + k - j_s + 1)}^{(n_{ik} + j_{ik} - k)} \\
 & \quad \sum_{n_{ik}=k_2 - j_{ik} + 1}^{n_{is} + j_s - k_1} \sum_{(n_{ik} + j_{ik} - k_2 - k_1 - k)}^{(n_{ik} + j_{ik} - k_2 - k_1 - k)} \\
 & \quad \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \right. \\
 & \quad \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - k_1 - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \quad \left. \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \right. \\
 & \quad \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \quad \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \quad \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \quad \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \quad \left. \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \right)
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_{sa}+n-D-j_{sa})} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{ik}+j_{sa}-l-j_{sa}^{ik}+s)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-l_{ik}+j_{ik}-l_{sa}-k_2} \sum_{(n_{sa}=n-j_{sa}^{ik})}^{(n_i-n_{sa}-1)!} \\
 & \frac{(n_i-n_{sa}-1)!}{(j_s-2)! \cdot (n_{is}+j_s+1)!} \\
 & \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}-n_{sa}-k_2-1)!}{(n_{sa}-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_{sa}-j_{sa}-k_2)!} \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j_{sa}-l_{ik})! \cdot (j_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \\
 & \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \cdot \\
 & \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j^{sa})!} \cdot \\
 & \frac{(l_{ik} - j_{sa} - 1)!}{(n_{is} - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{is} + l_{k_1} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - 1)! \cdot (j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
 \end{aligned}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - l_{ik} - j_{sa} + 1)! \cdot (j_{ik} - j_{sa} - j_{sa} + 1)!} \cdot \\
 & \frac{(n_{sa} + j_{sa} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot \\
 & \left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) - \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} \cdot \\
 & \sum_{j_s=2}^{l_s-l+1} \sum_{j_{ik}=j_s}^{l_{ik}-j_{sa}-j_{sa}^{ik}+1} \sum_{j^{sa}=l_s+j_{sa}-l+1}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} (j^{sa}=l_{ik}+n+1-D-j_{sa}^{ik}) \sum_{i=1}^n (n_i+1) \sum_{n+l_k}^n (n_{is}=n+1+l_k+1) \sum_{n=n_{is}+j_{sa}^{ik}-l_{k_1}}^{(\cdot)} (n_{sa}^{ik}=n_{is}+j_{sa}^{ik}-l_{k_2}) \frac{(n_i + j_{ik} + j_{sa}^{ik} - j_{sa} - s - l_{k_1} - l_{k_2})!}{(n_i - n_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n + 1 \wedge$$

$$l_s + j_{sa}^{ik} - l_{ik} + 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} = j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} = j_{sa} \wedge n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - 1 < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j^{sa}} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \sum_{(j^{sa}=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \\
 &\sum_{n_i=n+1}^n \sum_{(n_i+j_s+1)}^{(n_i+j_s+1)} \\
 &\sum_{(n_{is}+j_s-j_{ik})}^{(n_{ik}+j_{ik}-j^{sa})} \sum_{(n_{is}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa})} \\
 &\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 &\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 &\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 &\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(l_s+j_{sa}-l)} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-l)}
 \end{aligned}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - l)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{ik} - n < l_{ik} \wedge D + l_s + j_{sa}^{ik} - j_{sa} - 1$$

$$D > n < n \wedge l = l_k > 0$$

$$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^b < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s - l_k \wedge$$

$$l_{k_2} = l_k - l_{k_1} \Rightarrow$$

$$f_{zS \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})} \\
& \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
& \frac{(n_{i_s} - n_{i_k} - l_{k_1} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} + j_s - j_{i_k} - l_{k_1})!} \cdot \\
& \frac{(n_{i_k} - n_{s_a} - 1)!}{(j^{s_a} - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - j^{s_a} - l_{k_2})!} \cdot \\
& \frac{(n_{s_a} + j^{s_a} - n - 1)!}{(n_{s_a} + j^{s_a} - n - 1)!} \cdot \\
& \frac{(l_{i_k} - j_{s_a} - 1)!}{(n_{i_k} + l_{i_k} - j_{s_a} - 1)! \cdot (j_{i_k} - j_s - j_{s_a} + 1)!} \cdot \\
& \frac{(D + j_{s_a} - l_{s_a} - s)!}{(D + j_{s_a} - n - l_{s_a})! \cdot (n + j_{s_a} - j^{s_a} - s)!} +
\end{aligned}$$

$$\begin{aligned}
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
& \sum_{j_{i_k}=l_s+j_{s_a}^{i_k}-l+1}^{l_{i_k}-l+1} \sum_{(j^{s_a}=j_{i_k}+j_{s_a}-j_{s_a}^{i_k})}^{(\quad)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_{s_a}=n-j^{s_a}+1)}^{(n_{i_k}+j_{i_k}-j^{s_a}-l_{k_2})} \\
& \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot
\end{aligned}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{i=1}^{l_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s}$$

$$\sum_{j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{j_{sa}^{ik}-l} \binom{(\quad)}{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\left((D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge \right.$$

$$\left. 2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge \right.$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_{ik} + j_{sa} - n - l_{sa} - j_{sa}^{ik} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{K} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} \wedge j_{sa}^s < j_{sa}^{ik} \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k}$$

$$\mathbb{k} = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \left(\sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)} \right)$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{ik}-l+1} \sum_{(j_s)}^{()} (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l + 1)!}{(l_s - j_{ik} - l + 1)! \cdot (l_s - j_{sa} - l + 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - l + 1)! \cdot (j_{ik} - j_{sa} - l + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{j_s=l}^{l_s-l+1} \sum_{j_{sa}=j_s+n-D-j_{sa}+1}^{l_s-l+1} \\
 & \sum_{j_{ik}=j_s+j_{sa}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(n)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

GÜLDÜZ

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \left(\sum_{k=1}^{n-D-j_{sa}} \sum_{j=2}^{l_s} \frac{(l_s - n - D - j_{sa})!}{(j-2)!} \right) \cdot \sum_{i=n-D}^{j_{sa}+j_{sa}^{ik}} \sum_{k=l_{sa}+n-D}^{l_{ik}+j_{sa}+1} \frac{(l_{ik}+j_{sa}+1)!}{(i-k)!} \cdot \sum_{n_i=0}^n \sum_{k=0}^{n_i} \frac{(n_i+k)!}{n_i! \cdot k!} \cdot \sum_{n_{is}=n+k-j_s+1}^{n_i+k} \frac{(n_i+k-j_s+1)!}{(n_{is}+j_s-n_{ik}-j_{ik}-k_1)!} \cdot \sum_{n_{ik}=n_{is}-j_{ik}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2} \frac{(n_{ik}+j_{ik}-j^{sa}-k_2)!}{(n_{sa}=n-j^{sa}+1)!} \cdot \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

GÜLDENREINER

$$\begin{aligned}
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{ik}+j_s-l-j_{sa}^k+2)}^{(l_{sa}-l+1)} \\
 & \sum_{k_1=0}^n \sum_{k_2=0}^{(n_{is}-k_1+1)} \\
 & \sum_{k_2=0}^{n_{is}+j_s-j_{ik}-k_1} \sum_{k_1=0}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_{is}-k_1-1)! \cdot (n_{is}-k_1-k_2-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}-n_{sa}-k_2-1)!}{(j^{sa}-j_s-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-k_2)!} \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}-l_{k_1}}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_1})} \sum_{(n_{sa}=j^{sa}+1)}^{(n_{sa}-j^{sa}+1)} \\
 & \frac{(n_i-1)}{(j_s-2)(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)(n_i-n_{is}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-l_{k_2}-1)}{(j^{sa}-j_{ik}-1)(n_{ik}+j_s-n_{sa}-j^{sa}-l_{k_2})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{ik}+l_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!} \cdot \\
 & \left. \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \right) - \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + j_{sa}^{ik} + j_{sa} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1 \leq j_{sa} - 1$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = 1 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \binom{(\quad)}{\quad}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{(\quad)} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2)}^{(\quad)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_{ik} + n - D - j_{sa}^{ik})} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} ()$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa})!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{(j_s - j_{ik} - j_{sa}^{ik} + 1)} \\
 & \sum_{j_{ik} = j_{sa}^{ik} - 1}^{l_{ik} - j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(n - j_s + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n)} (j^{sa}=j_{sa}-j_{sa}^{ik})$$

$$\sum_{n+l_k}^{(n_i+l_k+1)} (n_i+l_k+1)$$

$$\sum_{n=n_{is}+j_s-l_{k_1}}^{(n_{sa}-l_{k_1}-j_{sa}-l_{k_2})} (n_{sa}-l_{k_1}-j_{sa}-l_{k_2})$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - s - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n - 1 \wedge$$

$$l_s + j_{sa}^{ik} - n - l_{ik} - 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} \leq l \wedge$$

$$j_{ik} = j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} = j_s + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n - 1 < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{\mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n}^n \sum_{(n_i=j_s+1)}^{(n_i=j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \sum_{(n_{ik}+j_{ik}-n_{sa}-j^{sa})}^{(n_{ik}+j_{ik}-j_{sa}^{ik})}$$

$$\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_j)}{(D + j^{sa} + s - n - l - j_{sa})! \cdot (n - j_{sa} - j^{sa} - l)}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa}^{ik} - j_{sa}$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{sa} + j_{sa} - j_{sa}^{ik} > l_{ik}$$

$$l_{sa} > D + l_{ik} + j_{sa} - n - j_{sa}^{ik}$$

$$D \geq n < n \wedge l = i \wedge l_s \geq 0$$

$$j_s \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$$

$$s: \{s_1, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j\}$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} + j^{sa} - n - 1)!}{(j_s - 1)! \cdot (n_{sa} + j^{sa} - n - 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} - l_{sa} - j_{sa}^{ik} - l_{ik} - j_{sa})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n \wedge l \neq i \wedge l_s \leq D - n +$

$1 \leq j_s \leq j_{ik} - j_{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$

$l_{ik} - j_{ik} + 1 > j_{sa} - j_{sa}^{ik} + j_{sa} - j_{sa} > l_{ik} \wedge$

$l_{sa} > D + j_{sa} - n - j_{sa}^{ik} \wedge$

$l_{sa} > n - l_{sa} \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 5 \wedge s = s + \mathbb{k} \wedge$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{\mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=1}^n \sum_{(n_i=n+j_s+1)}^{(n-j_s+1)}$$

$$\sum_{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\sum_{(n_{ik}-j_{ik}+1)}^{(n_{ik}-j_{ik}-\mathbb{k}_1)}$$

$$\sum_{(n_{sa}-j^{sa}+1)}^{(n_{sa}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - j_s + 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 + 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_{sa} + j_{sa}^{ik} - l_{ik} - j_{sa})!}{(j_{ik} + l_{sa} - j^{sa} - l_{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^S \Rightarrow j_s, i, j_{sa} - \sum_{k=l}^{(j_{sa}^{ik}+1)} \binom{j_{sa}^{ik}+1}{j_{sa}^{ik}+1}$$

$$= j_{sa}^{ik} + l_{ik} \sum_{j_{sa}^{ik}+1}^{(l_s+j_{sa}-l)} \binom{l_s+j_{sa}-l}{j_{sa}^{ik}+1}$$

$$\sum_{n_i=n+k}^{(n_i-j_s+1)} \binom{n_i-j_s+1}{n_i=n+k}$$

$$\sum_{n_{is}=n+k-k_1}^{(n_{ik}+j_{ik}-j_{sa}-k_2)} \binom{n_{ik}+j_{ik}-j_{sa}-k_2}{n_{is}=n+k-k_1}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{(n_{sa}=n-j_{sa}+1)} \binom{n_{ik}+j_{ik}-j_{sa}-k_2}{n_{sa}=n-j_{sa}+1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1} \sum_{(n_{sa}=n-j^{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_{ik} - n_{ik} - j_{ik} - l_{k_1})!} \\
 & \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}
 \end{aligned}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(l_s+j_{sa}-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$D \geq n < n \wedge l \neq i \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_i \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i, \dots, j_{sa}^i\} \wedge$

$s > 5 \wedge s = s + 1$

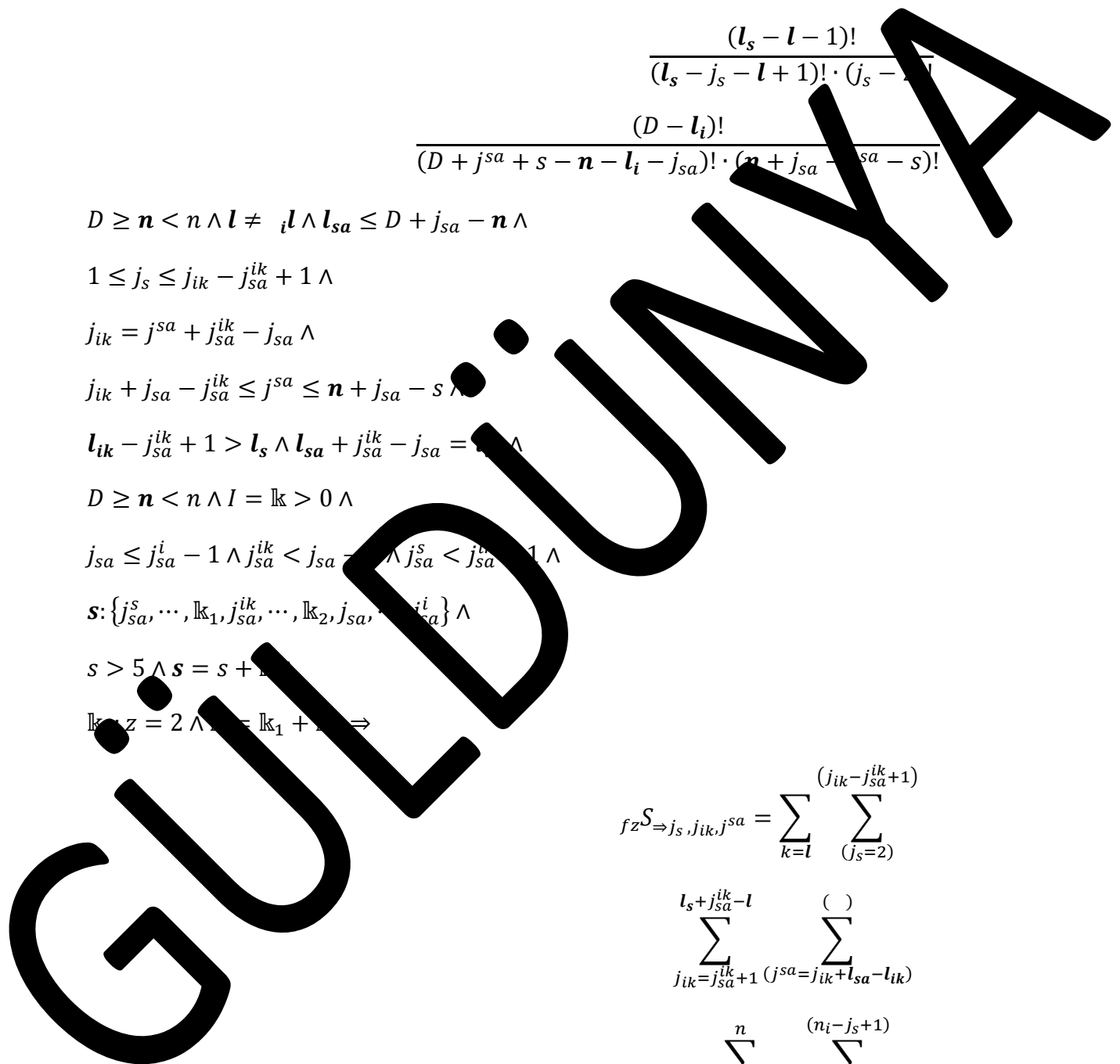
$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$



$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s + j_{sa}^{ik} - l + 1}^{(n_{sa} - j_{sa} - l - j_{sa} + 1)} \sum_{(j^{sa}=j_{ik} + l_{sa} - l_{ik})} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa}=n - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{()} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s-k-l} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{()} \sum_{n_i=0}^n \sum_{n_{is}=n+k-j_s+1}^{()} \sum_{n_{is}+j_s-j_{ik}-k_1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{()} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} + s - n - l_i - j_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$D \geq n < n \wedge l \neq i l \wedge \dots \leq D + j_{sa} - n \wedge$$

$$1 \leq \dots < j_{ik} - j_{sa} \dots \wedge$$

$$j_{ik} = j^{sa} + \dots - j_{sa} \wedge$$

$$\dots + j_{sa} \dots \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{\Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{n_i=n+k}^{(n_i-j_s)} \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s)}$$

$$\sum_{n_{sa}=n+k_2-j_{ik}}^{(n_{sa}=n-j^{sa}+1)} \sum_{(n_{sa}=n-k_2)}^{(n_{sa}=n-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j_{ik} - k_2 - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+lk}^n \sum_{(n_{is}=n+lk-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-lk_1} \sum_{(n_{sa}=n_{ik}+j_{sa}-lk_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{lk_1} - lk_2)!}{(n_i - n - lk_1 - lk_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - j_{sa}^{lk_1} - lk_2)!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - n)!}{(D + j_{sa} + s - n - j_{sa})! \cdot (n + j_{sa} - j_{sa}^s - s)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$2 \leq l \leq D + l_s + j_{sa} - n - 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{lk} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{lk} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{lk} \leq j_{sa} < n + j_{sa} - s$

$l_{ik} - j_{sa}^{lk} + 1 \leq l \wedge l_{sa} - j_{sa}^{lk} - j_{sa} = l_{ik} \wedge$

$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$

$D \geq n < n \wedge I = lk > 0$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{lk} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{lk} - 1 \wedge$

$s: \{j_{sa}^s, \dots, j_{sa}^{lk}, \dots, lk_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 5 \wedge s = s + lk \wedge$

$lk_z: z = 2 \wedge lk = lk_1 + lk_2 \Rightarrow$

$$fz^{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{lk}+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_s+j_{sa}-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-n_{ik}-j_s-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{sa}-l_{k_2}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-l_{k_2})!} \cdot \\
 & \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-n-1)! \cdot (n-j^{sa})!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{sa}-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_s - l_{ik} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - j_{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
& \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
& \sum_{j_{ik} = j^{sa} + l_{ik} - l_{sa}}^{(l_s + j_{sa} - l)} \sum_{(j^{sa} = l_{sa} + n - D)}^{(l_s + j_{sa} - l)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\cdot)} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq j_l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f^z = f^z(i_s, j_{ik}, j^{sa}) = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa}-l+1)} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_i)!} \cdot \sum_{k=l}^{()} \sum_{j_s=j_{ik}^{ik}+1}^{()} \sum_{l_s=j^{sa}+l_{ik}-l_s}^{()} \sum_{n_{sa}=l_{sa}+n-D}^{()} \sum_{n_{is}=n+k-j_s+1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}^{()} \frac{(n_i + j_{sa} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$2 \leq l < D + l_s \wedge n - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{sa} = j^{sa} - j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s=2)}^{(j_{ik} - j_{sa}^{ik})} \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{sa}=j_{ik}+l_{sa})}^{(n)} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}^{(n_i-n_{is}-1)!} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{is}-n_{ik}-\mathbb{k}_1-1)!} \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-\mathbb{k}_2)!} \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

GÜLDENWASSER

$$\begin{aligned}
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-\mathbb{k}_1)!} \\
 & \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}+1)!}{(n_{sa}+j_s-n-1)! \cdot (n-j^{sa})!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})! \cdot (n+j_{sa}-j^{sa}-s)!} \cdot \sum_{k=l}^n \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + j_{sa} - n - l_{sa} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa} - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = 1 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{\Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{ik} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(\)} \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}-l} \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)}^{(\)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa} - n - l_{sa} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{\mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_{sa} + n - D - j_{sa})} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})} ()$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_s)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}=j_{ik}+k}^{(n-j_{sa}+1)} \sum_{j_{ik}=j_{sa}^{ik}-1}^{(n+j_{sa}-l_{sa}+1)} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{(n-j_s+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=l_{sa}-l_{ik})}^{()}$$

$$\sum_{i=n+k}^n \sum_{(n_i=n-k+1)}^{(n_i+1)}$$

$$\sum_{n_i=n_{is}+j_{sa}^{ik}-k_1}^{()} \sum_{(n_i+1)}^{()} \sum_{(j^{sa}-k_2)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^{ik} - j_s - s - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_{ik} + j_{sa}^{ik} - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq D - n - 1 \wedge$$

$$D + l_s + j_{sa} - n - l_{sa} - 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq i_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} = j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} < j^{sa} < n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - l_{sa} < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{\mathcal{S} \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n_{is}+j_s+1}^n \sum_{(j_s=2)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j_{sa})} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

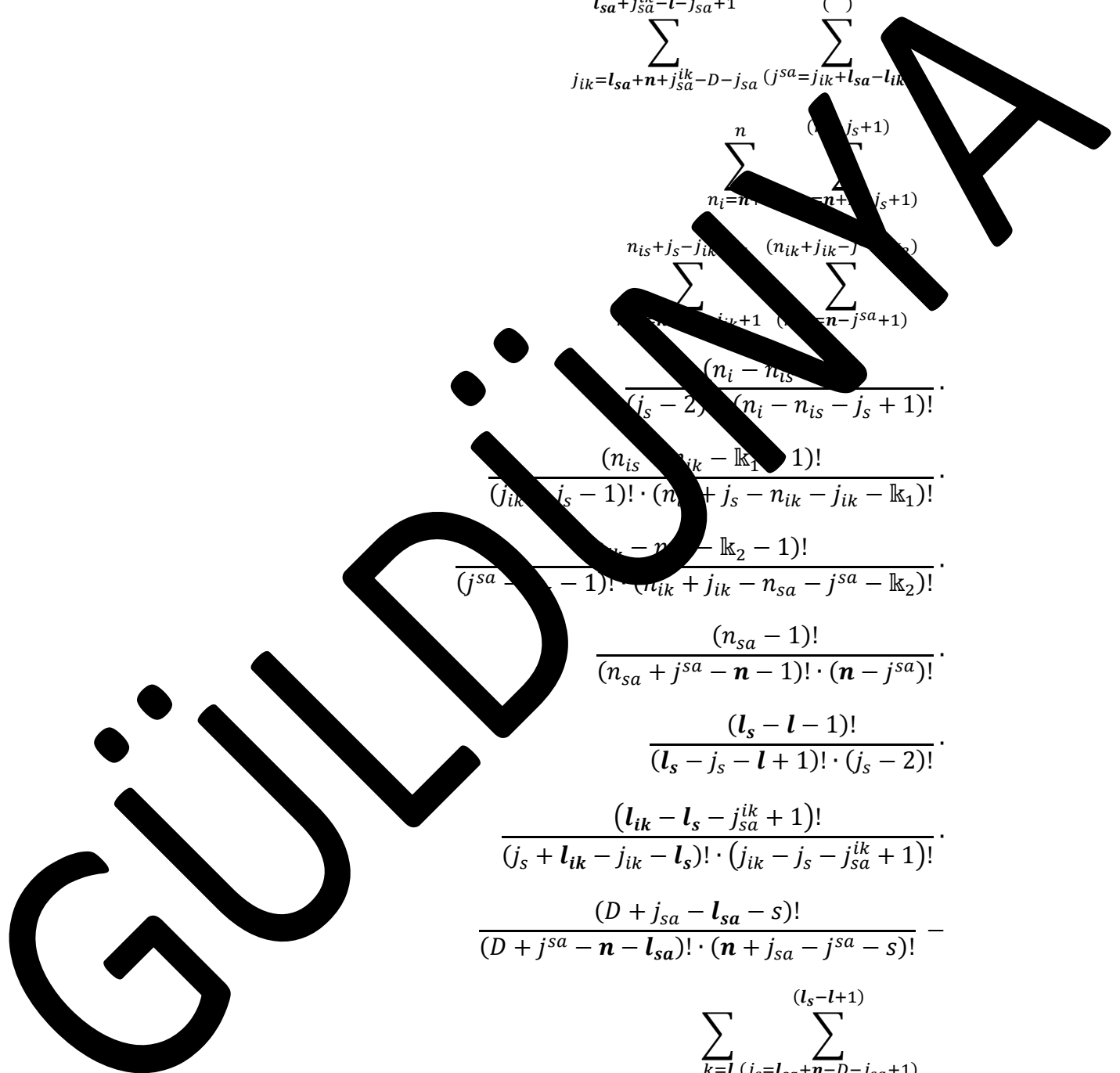
$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{sa}+n-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$



$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l_{k_1} - l_{k_2})! \cdot (l - 2)!}$$

$$\frac{(D - 1)!}{(D + j^{sa} - n - l_{sa})! \cdot (n - l_{sa} - j^{sa} - l_{k_1})!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n - l_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{ik} - n < l_{ik} \wedge D + l_s + j_{sa}^{ik} - j_{sa} - 1$$

$$D > n < n \wedge l = l_k > 0$$

$$j_{sa} < j_{sa}^l - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s - l_k \wedge$$

$$l_{k_2} = l_k - l_{k_1} \Rightarrow$$

$$f_{zS \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_{ik}+n+j_{sa}-D-j_{sa}^{ik})}^{(l_s+j_{sa}-l)}$$

$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j^{sa} - l_{k_2})!} \cdot \frac{(n_{sa} + j^{sa} - n - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j^{sa} - j_{ik} - 1)!} \cdot \frac{(l_{ik} - j_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - j_{sa} - j_{sa}^{ik} + 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}} \sum_{(j^{sa}=l_s+j_{sa}-l+1)}^{(l_{ik}+j_{sa}-l-j_{sa}^{ik}+1)} \frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - 1)!}{(D + j^{sa} - n - l_{sa} - 1)! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \sum_{j_{ik}=1}^{j_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s} \sum_{j_{sa}=j_{ik}+n+j_{sa}-D-j_{sa}^{ik}}^{l_s+j_{sa}-l} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq i l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z = \sum_{k=l}^{(l_s-l+1)} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+l_{ik}}^{(j_{sa}^{ik}+l_{ik}-j_{sa}^{ik}+1)} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+l_{ik}}^{(j_{sa}^{ik}+l_{ik}-j_{sa}^{ik}+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \sum_{(l_s+j_{sa})}^{()} \sum_{(j_{ik}=j^{sa}+l_{ik}-l_{sa})}^{()} \sum_{(j_{sa}=l_{ik})}^{()} \sum_{(j_{sa}^{ik})}^{()} \sum_{(n_i-j_s+1)}^{()} \sum_{(n_{ik}+l_{ik}-j_s+1)}^{()} \sum_{(n_{ik}=n_{is}+j_{sa}-l_{sa}-l_{k_1})}^{()} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()} \frac{(n_i + j_{ik} - j_{sa}^s - j_s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(l_i - n_{ik} - l_{k_1} - l_{k_2})! \cdot (n + l_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq n - 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} - j_s + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - n \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{ik}+j_{sa}^{ik}-l_{ik})}^{(n_i-j_s)}$$

$$\sum_{n_i=n+k}^{(n_i-j_s)} \sum_{(n=n+k-j_s+1)}^{(n_i-j_s)}$$

$$\sum_{n_{is}=j_{ik}-k_1}^{(n_{is}+j_s-n_{ik}-j_{ik}-k_1)} \sum_{(n_{sa}=n-j_{sa}+1)}^{(n_{sa}-k_2)}$$

$$\sum_{n_{sa}=n+k_2-j_{ik}}^{(n_{sa}=n-j_{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(n_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - k_2)!}$$

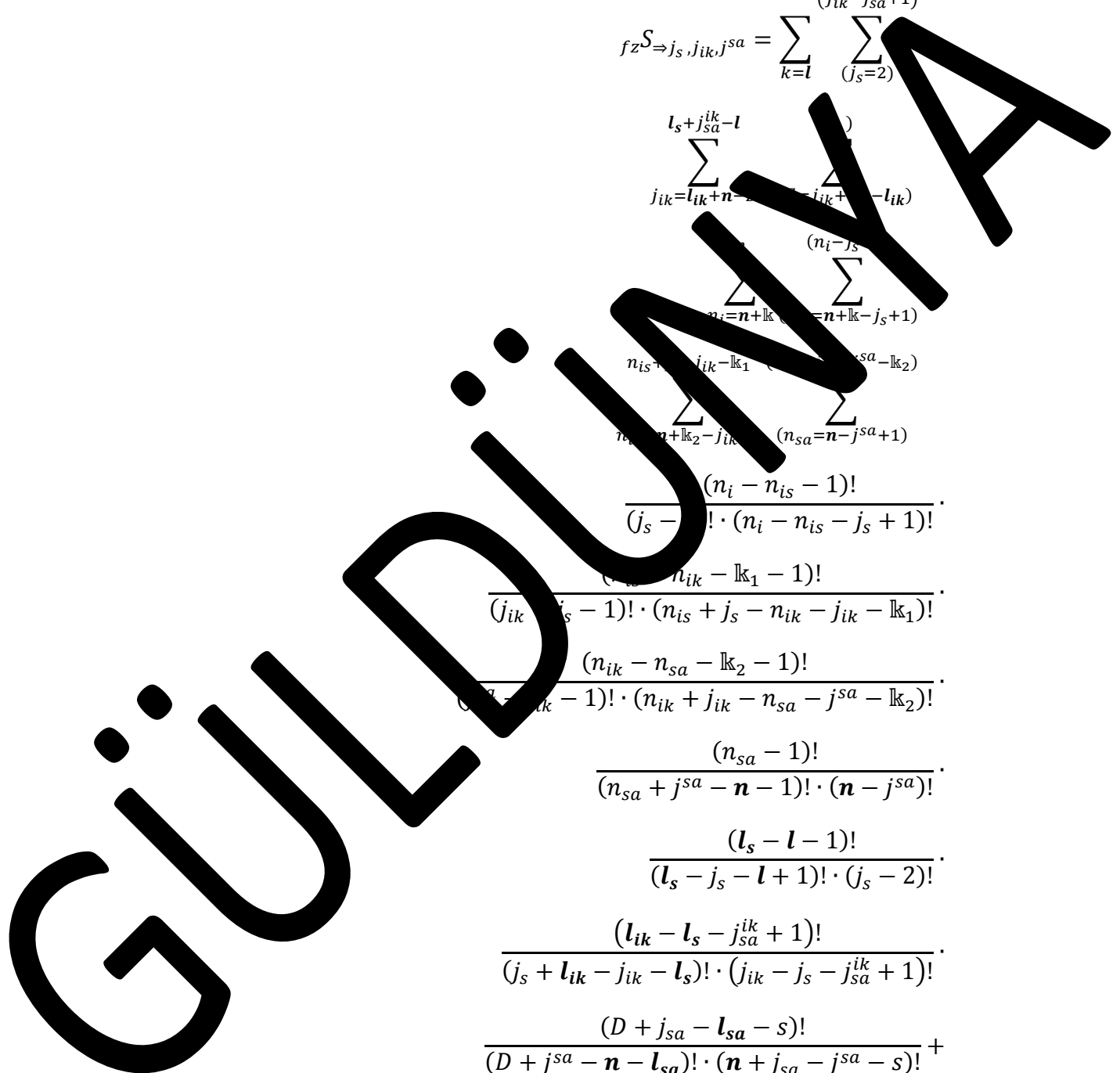
$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$



$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-l_{k_1})!}$$

$$\frac{(n_{ik}-n_{sa}-l_{k_2}-1)!}{(j^{sa}-j_{ik}-1)!(n_{ik}+j_{ik}-n_{sa}-j^{sa}-l_{k_2})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{ik}-n-1)!(n-j^{sa})!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)!(j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)!(j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D+j_{sa}-l_{sa}-s)!}{(D+j^{sa}-n-l_{sa})!(n+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2})}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq i \wedge l - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} - l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 5 \wedge s = s + 1 \wedge$

$\mathbb{k} : z = 2 \wedge \dots = \mathbb{k}_1 + \dots \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s + 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - l_{sa})! \cdot (D + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{l_s + j_{sa}^{ik} - l} \sum_{(j^{sa} = j_{ik} + l_{sa} - l_{ik})}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq l \leq D + l_s + j_{sa}^{ik} - n - l_{ik} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{sa}^{ik}} = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j_{ik}=l_{ik}+n-D}^{(l_{ik}-l+1)} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{()} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=n-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \frac{(l_s - l + 1 - k)!}{(l_{ik} + n - j_{sa}^{ik} + 1)!} \cdot \\
 & \sum_{i_s=0}^{l_{ik} - 1} \frac{(l_s - l - 1 - i_s)!}{(i_s + j_{sa}^{ik} - 1)!} \cdot \sum_{j_{ik}=0}^{l_{sa} - l_{ik}} \frac{(l_s - l - 1 - j_{ik})!}{(j_{ik} + l_{sa} - l_{ik})!} \cdot \\
 & \sum_{n_{ik}=0}^{n_{is} + j_{ik} - k_1} \frac{(n_{is} + k - (n_{is} + k - j_s + 1))!}{(n_{is} + j_{ik} - k_1)!} \cdot \sum_{n_{sa}=0}^{n_{ik} + j_{ik} - j^{sa} - k_2} \frac{(n_{sa} + k - (n_{sa} + k - j_s + 1))!}{(n_{sa} + j_{ik} - k_2)!} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{()} \sum_{(j^{sa}=j_{ik}+l_{sa}-l)}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{()} \sum_{(n_{ik}+j_{ik}-j^{sa}=n_{is}-k_2)}^{()}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_{sa}^{ik} - k_1 - k_2)!}{(n_i - n - k_1 - k_2)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik})!}$$

$$\frac{(n_i - j_s - k_1 - k_2 - 1)!}{(n_i - j_s - k_1 - k_2 + 1)! \cdot (j_s - 2)!}$$

$$\frac{(n_i - l_i)!}{(D + j_s - n - l_i)! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$

$D + l_s + j_{sa}^{ik} - n - l_{ik} + 1 \leq l \leq l - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} \wedge$

$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} + n + j_{sa}^s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa}^{ik} - j_{sa}^{ik} = l_{ik} \wedge$

$D + j_s - n < l_{ik} = D + l_s + j_{sa}^{ik} - n - 1 \wedge$

$D \geq n < n \wedge l = k > 0 \wedge$

$1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 5 \wedge s = s + k \wedge$

$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{sa}=n-j^{sa}-l_{k_2})}^{(n_{ik}+j_{ik}-j^{sa}-l_{k_2})}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - l_{k_2})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}} \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + l_{sa} - j^{sa} - l_i)!}$$

$D \geq n < n \wedge l = i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_i \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} = j_{sa}^s \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 5 \wedge s = s + 1$

$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$fz_{S \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=l} \sum_{\binom{()}{j_s=1}}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{\binom{(l_{sa}-l+1)}{j^{sa}=j_{sa}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(n_i-j_{ik}-\mathbb{k}_1+1)}{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}} \sum_{\binom{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}{n_{sa}=n-j^{sa}+1}}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - l_{sa} - s)!}$$

$$\sum_{k=0}^{()} \binom{()}{k} \binom{()}{l_{sa} - k}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{()} \binom{()}{j_{sa} - j_{ik}}$$

$$\sum_{n_i=n}^n \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^n (n_{ik}=n_i-j_{ik}+1)$$

$$\frac{(n_i - n - \mathbb{k}_1 + j_{sa}^{ik} - j_{sa}^{ik} - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$(n \geq n < n) \wedge l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$(l_{ik} - j_{sa}^{ik} + j_{sa}^{ik} > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik}) \vee$$

$$n \wedge l = l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s)) \wedge$$

$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

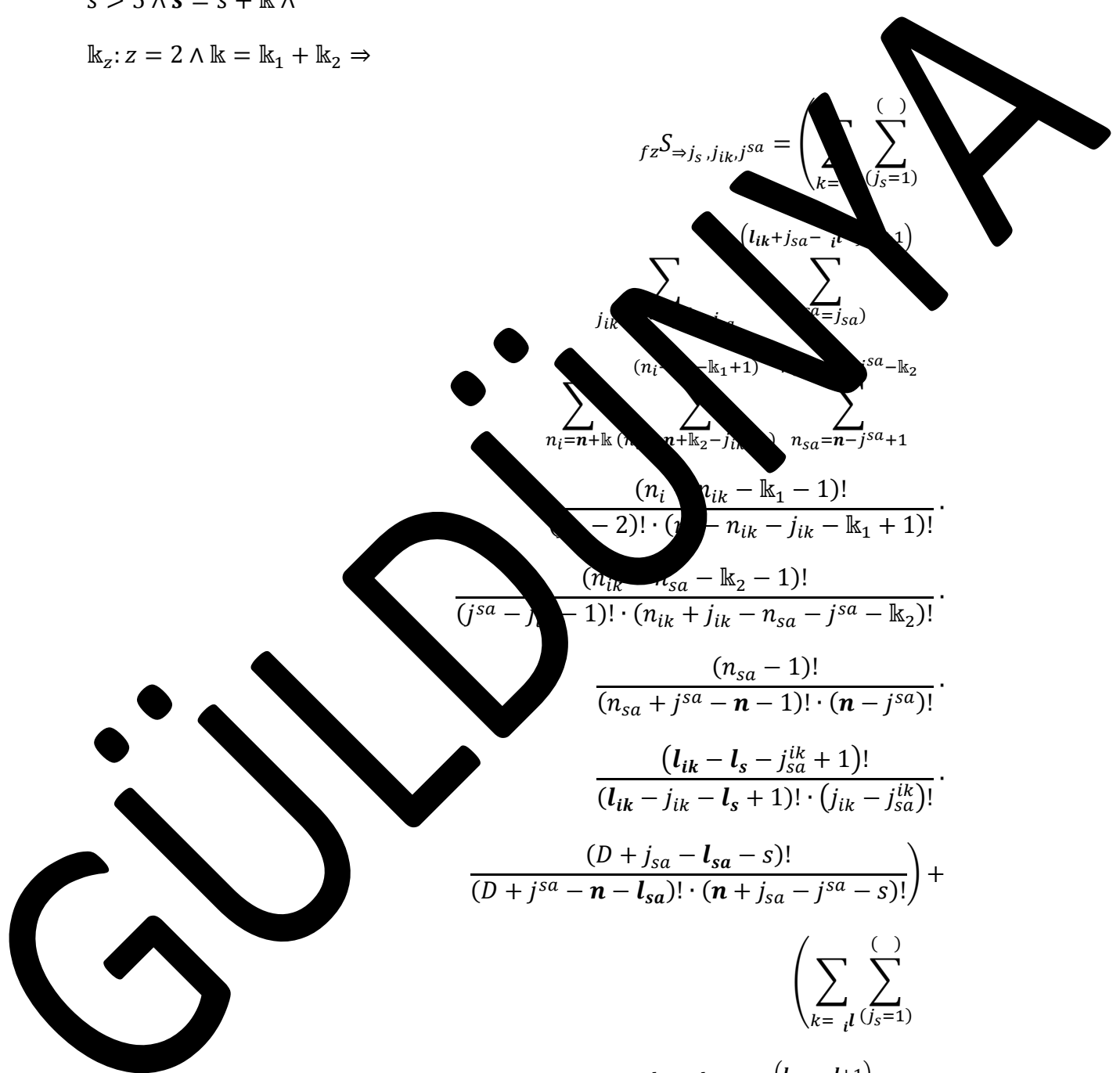
$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 5 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa} = \left(\sum_{k=1}^{\binom{()}{j_s=1}} \sum_{i=1}^{\binom{()}{j_{ik}+j_{sa}-i}} \sum_{a=j_{sa}}^{\binom{()}{n_i-n-\mathbb{k}_1+1}} \sum_{n_{sa}=n-j_{sa}+1}^{\binom{()}{n_{ik}-\mathbb{k}_1-1}} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \right) + \left(\sum_{k=1}^{\binom{()}{j_{sa}^i}} \sum_{l=1}^{\binom{()}{j_{sa}^i}} \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i^{l+1}} \sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(l_{sa}-i^{l+1})} \right)$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - l_s - \mathbb{k}_1)!}$$

$$\frac{(l_{sa} - l_s - j_{sa})!}{(j_{ik} + l_{sa} - j_{sa} - l_{ik})! \cdot (j^{sa} + l_{ik} - j_{sa})!}$$

$$\left(\frac{(D - j_{sa} - l_{sa} - s)!}{(n + j^{sa} - n - l_s)! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=i}^{()} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_{sa}^{sa}=j_{sa})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$(D - n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} > l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$(D \geq n < n \wedge l = l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{sa} - j_{sa} + 1 > l_s \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_{ik} + j_{sa} - n - j_{sa}^{ik} \vee$$

$$D \geq n < n \wedge l = l > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S \Rightarrow j_s, j_{ik}, j^{sa} = \left(\sum_{k=i}^l \sum_{j_s=1}^{(\cdot)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2}$$

$$\frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - k_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) +$$

$$\left(\sum_{k=i}^{(\cdot)} \sum_{j_s=1}^{(\cdot)} \right)$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i+1} \sum_{j_{sa}=n-D}^{(l_{sa}-i+1)}$$

$$\sum_{n_i=n+k}^n \sum_{n_{ik}=n+k_2}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j_{sa}-k_2}^{(n_{ik}+j_{ik}-j^{sa}-k_2)}$$

$$\frac{(n_{ik}-k_1-1)!}{(j_{ik}-2)! \cdot (n_i-j_{ik}-k_1+1)!}$$

$$\frac{(n_{sa}-k_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-k_2)!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j^{sa})!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(l_{ik}-j_{ik}-l_s+1)! \cdot (j_{ik}-j_{sa}^{ik})!}$$

$$\frac{(l_{sa}+j_{sa}^{ik}-l_{ik}-j_{sa})!}{(j_{sa}^{ik}-j_{sa}-j^{sa}-l_{ik})! \cdot (j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}$$

$$\left(\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \right) -$$

$$\sum_{k=i}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{j^{sa}=j_{sa}}$$

$$\sum_{n_i=n+k}^n \sum_{n_{ik}=n_i-j_{ik}-k_1+1}^{(\cdot)} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-k_2}$$

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$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \mathcal{S} \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=i}^{\binom{()}{l}} \sum_{(j_s=1)}^{\binom{()}{l}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-i-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{\binom{()}{l}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^n \sum_{j_s=1}^{(j_{ik} - j_{sa}^{ik})} \frac{\sum_{j_{ik}=1}^{(j_{ik} - j_{sa}^{ik})} \sum_{j_{sa}=1}^{(j_{sa} - l_{sa})} \frac{\sum_{n+l_k=n+l_k}^n (n_{ik}=n_{ik}-l_{k_1}-l_{k_2})! \cdot (j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = l \wedge l_s = D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa}^{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D - l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = l_k > l \wedge$$

$$j_{sa}^{sa} = j_{sa}^{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_{zS \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=1}^n \sum_{j_s=1}^{(j_{ik} - j_{sa}^{ik})}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{sa}+n-D)}^{(l_{sa}-i+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-l_{k_2}} \\
 & \frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \\
 & \frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - l_{k_2})!} \\
 & \frac{(n_i - 1)!}{(n_i + j^{sa} - n - l_{k_1})! \cdot (n - j^{sa})!} \\
 & \frac{(j_{ik} - l_{k_1} - j_{sa} - j_{ik} - l_{k_2} - 1)!}{(j_{ik} - j_{sa} - l_{k_1} + 1)! \cdot (j_{ik} - j_{sa})!} \\
 & \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa} - s)! \cdot (n + j_{sa} - j^{sa} - s)!} \\
 & \sum_{k=l}^{()} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-l_{k_2}}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{k=1}^{()} \sum_{j_s=1}^{()} \binom{n_i - j_{ik} - \mathbb{k}_1 + 1}{j_{ik} - 2} \binom{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}{n_{sa} = n - j^{sa} + 1} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!} \sum_{k=1}^{()} \sum_{j_s=1}^{()}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_{ik})!}{(D + s - n - \mathbb{k}_1 - \mathbb{k}_2)! (n - s)!}$$

$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_{sa} - j_{sa} - n + 1 \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^i - 1 \wedge j_{ik} < j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1$

$s: \{j_{sa}^i, \dots, j_{sa}^{ik}, \dots, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 5 \wedge s = s + 1 \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+j_{sa}-i-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)} \sum_{n_{sa}=n-j^{sa}+1}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa} - 1)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} - 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (n_{sa} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa})!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - l_{sa})!} \sum_{j_s=1}^{(n)} \sum_{j_{ik}=j_{sa}^{ik} (j^{sa}=j_{sa})}^{(n)} \sum_{n_i=0}^n \sum_{n_{ik}=n_i - j_{ik} - \mathbb{k}_1 + 1}^{(n)} \sum_{n_{sa}=n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}^{(n)} \frac{(n_i + j_{ik} - j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - j_{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n \wedge n \wedge l = i \wedge l \wedge i \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1$$

$$j_{ik} + j_{sa}^{ik} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{\binom{()}{j_s}} \binom{()}{j_s}$$

$$\sum_{j_{ik}=\mathbb{k}_1+n-D}^{\mathbb{k}_1-l+1} \binom{()}{j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}^{n_{ik}+j_{ik}-j_{sa}}$$

$$\frac{(n_i - j_{ik} - \mathbb{k}_1)!}{(j_{ik} - 1)! \cdot (n_i - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - j_{ik} - \mathbb{k}_2 - 1)!}{(j_{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(\mathbb{k}_1 - l_s - j_{sa}^{ik} + 1)!}{(\mathbb{k}_1 - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

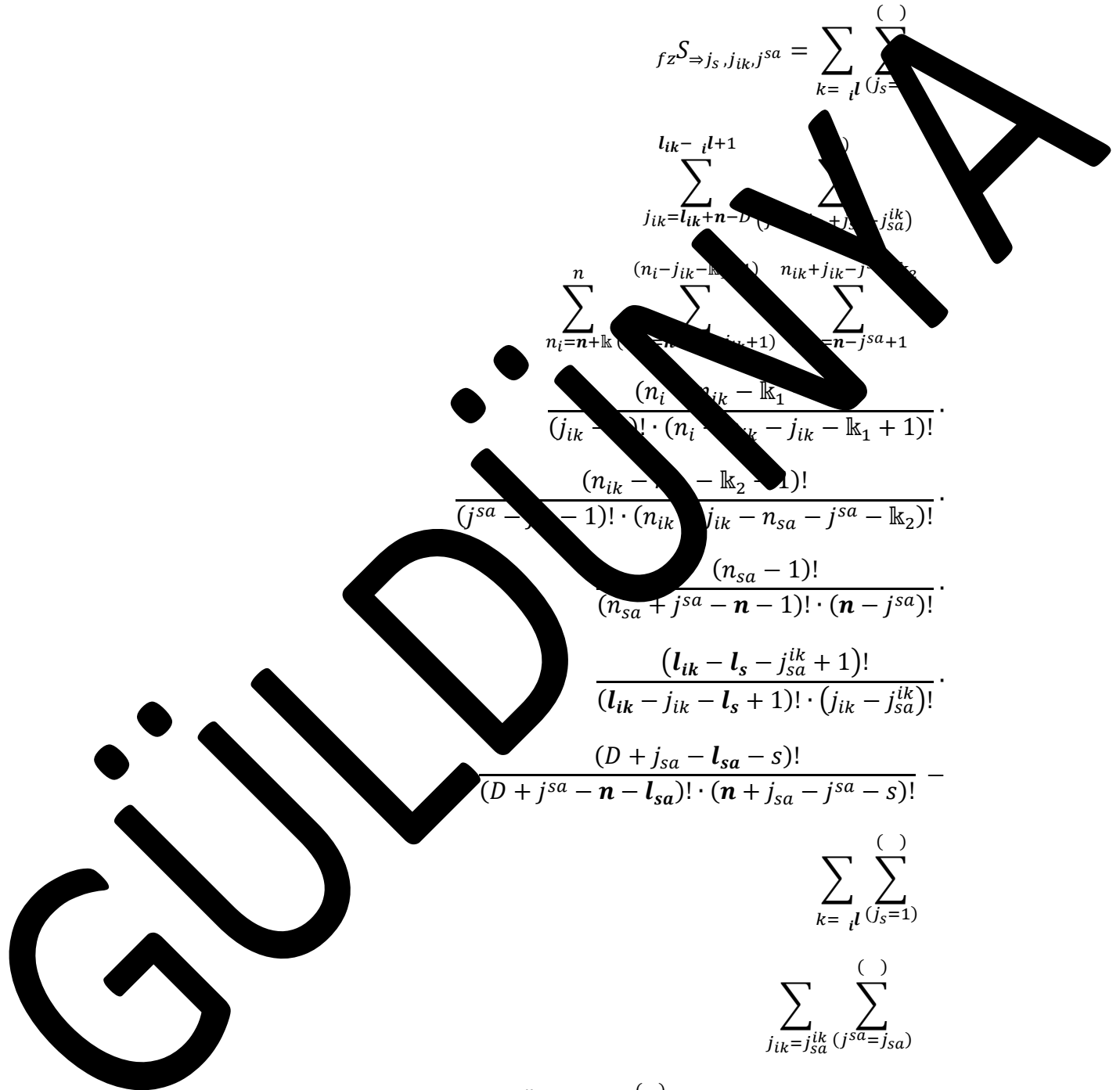
$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!}$$

$$\sum_{k=1}^{\binom{()}{j_s}} \sum_{j_s=1}^{\binom{()}{j_s}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{j_{sa}=j_{sa}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}^{\binom{()}{j_{sa}}} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$



$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = {}_i l \wedge l_{sa} \leq D + j_{sa} - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^{j_{sa}, j_{ik}, j_{sa}} = \sum_{k=l}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$\sum_{j_{ik}=j^{sa}+l_{ik}-l_{sa}}^{(l_{sa}-l+1)} \sum_{j_{sa}=j_{sa}}^{(l_{sa}-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{n_{ik}=n+k_2-j_{ik}+1}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-k_2}$$

$$\frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - k_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - k_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=i}^{\binom{()}{l}} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{\binom{()}{n_{sa}=n_{ik}+j_{sa}-l_{k_2}}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{l_{k_1}} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{l_{k_1}} - l_{k_2})!}$$

$$D \geq n < n \wedge l = i l \wedge l_{sa} \leq D + j_{sa} \wedge n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = i l > 0 \wedge$$

$$j_s \leq j_{sa} - 1 \wedge j_{sa}^{ik} < j_s - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{l_{k_2}}, \dots, l_{k_2}, j_{sa}^{l_{k_1}}, \dots, j_{sa}^{l_{k_2}}\}$$

$$s > 5 \wedge s = s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_{k_z} = l_{k_1} + 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j^{sa}} = \sum_{k=i}^{\binom{()}{l}} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{sa}+j_{sa}^{ik}-i-l-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+l_{sa}-l_{ik})}^{\binom{()}{j_s=1}}$$

$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - n - 1)! \cdot (n - j^{sa})!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - l_s - \mathbb{k}_1)!} \cdot \\
 & \frac{(l_s - j_{sa} - s)!}{(l_s - j^{sa} - n - 1)! \cdot (l_s - j^{sa} - s)!} \cdot \\
 & \sum_{k=i}^{()} \sum_{l_s=1}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j^{sa}=j_{sa})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}^{()} \\
 & \frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$D - n < l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{sa}^{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

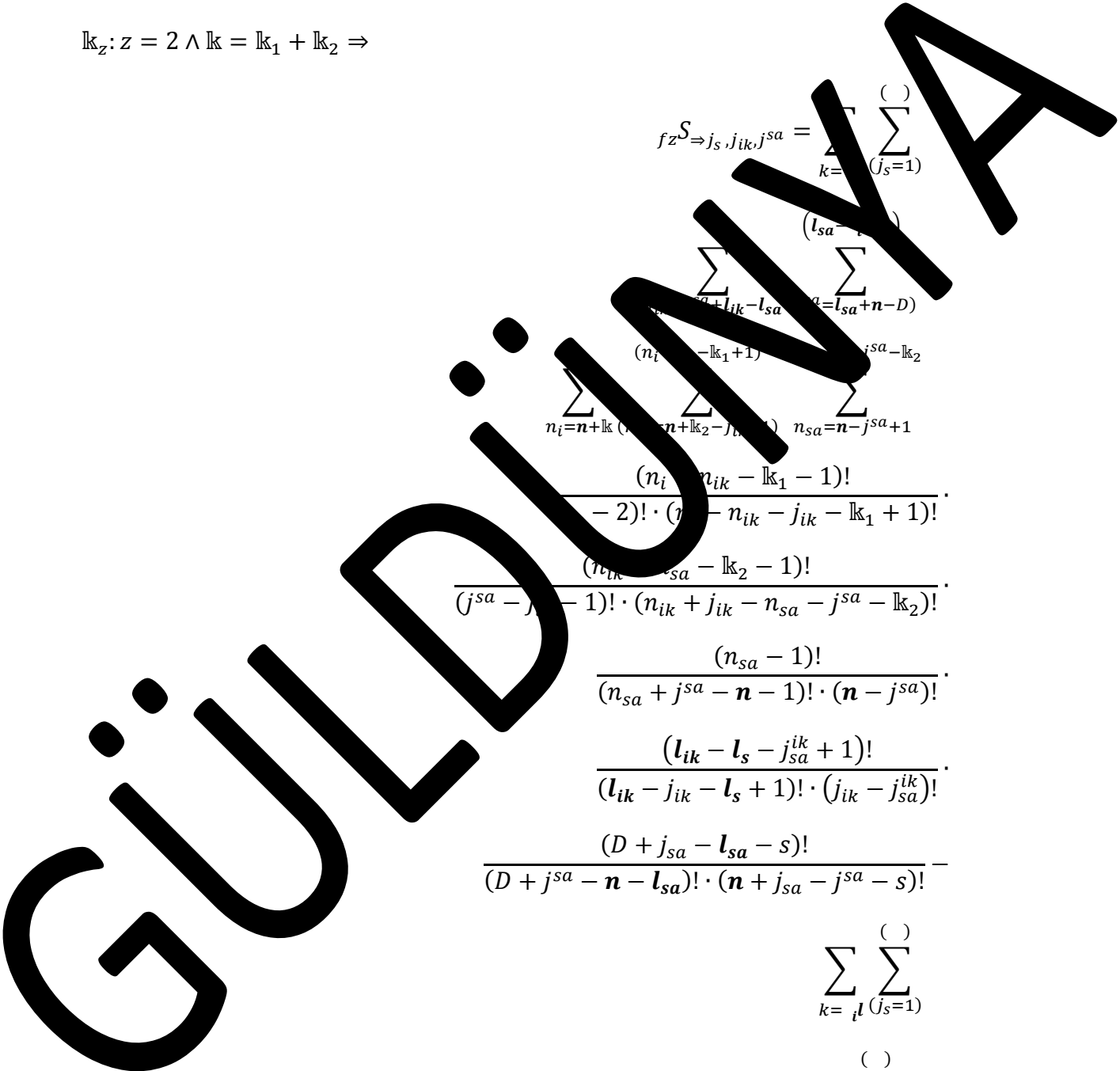
$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$

$s > 5 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S \Rightarrow j_s, j_{ik}, j_{sa} = \sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{(l_{sa}=1)}^{()} \sum_{(a=l_{sa}+n-D)}^{()} \sum_{(n_i=n+\mathbb{k})}^{()} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{()} \sum_{(n_{sa}=n-j_{sa}+1)}^{()} \frac{(n_i - 2)! \cdot (n_{ik} - \mathbb{k}_1 - 1)!}{(j_{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j_{sa} - n - l_{sa})! \cdot (n + j_{sa} - j_{sa} - s)!} \sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j_{sa}^s=j_{sa})}^{()} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2}^{()}$$



$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa} - n < l_{sa} \leq D + l_s + j_{sa} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$f_{zS \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=i}^{\binom{()}{}} \sum_{l=1}^{\binom{()}{}}$$

$$\sum_{j_{ik}=l_{sa}+n+j_{sa}^{ik}-D-j_{sa}}^{l_{sa}+j_{sa}^{ik}-i-l-j_{sa}+1} \sum_{(j_{sa}=j_{ik}+l_{sa}-l_{ik})}^{\binom{()}{}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=n-j_{sa}+1}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j_{sa} - \mathbb{k}_2)!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - n - 1)! \cdot (n - j_{sa})!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - l_{sa} - s)!}{(D + j^{sa} - n - l_{sa})! \cdot (n + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=1}^{(i)} \sum_{j_s=1}^{(i)} \sum_{j_{ik}=1}^{(i)} \sum_{j_{sa}=1}^{(i)} \sum_{l_i=1}^{(i)} \sum_{l_s=1}^{(i)} \sum_{l_{ik}=1}^{(i)} \sum_{l_{sa}=1}^{(i)} \frac{\sum_{n+l_k}^n (n_{ik}=n_{i_1} - l_{k_1} - l_{k_2} - j_{sa} - l_{k_2} + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa} - j_s - s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i \wedge l_s = D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j^{sa} + j_{sa}^{ik} - j_s \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D - l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = l_k > 1 \wedge$$

$$j_{sa} \geq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_{sa}} = \sum_{k=1}^{(i)} \sum_{j_s=1}^{(i)}$$

$$\sum_{j_{ik}=j_{sa}+l_{ik}-l_{sa}} \binom{l_{ik}+j_{sa}-i-l-j_{sa}^{ik}+1}{j_{sa}=l_{ik}+n+s-D-j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_{sa}=n-j_{sa}^{ik}}^{n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2}}$$

$$\frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!}$$

$$\frac{(n_{ik} - n_{sa} - l_{k_2} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - l_{k_2})!}$$

$$\frac{(n - j_{sa} - n - j_{sa}^{ik} - 1)!}{(n - j_{sa} - n - j_{sa}^{ik})! \cdot (n - j_{sa}^{ik})!}$$

$$\frac{(n_{ik} - l_{sa} - j_{ik} - 1)!}{(n_{ik} - j_{ik} - l_{sa} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D + n_{sa} - l_{sa} - 1)!}{(D + n_{sa} - n - l_{sa} - 1)! \cdot (n + j_{sa} - j_{sa}^{ik} - s)!}$$

$$\sum_{k=1}^{(i)} \sum_{j_s=1}^{(i)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{j_{sa}^{ik}=j_{sa}^{ik}}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_{ik}=n_i-j_{ik}-l_{k_1}+1}^{(i)} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}^{ik}-l_{k_2}}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq n + j_{sa} - s \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{sa} + j_{sa}^{ik} - j_{sa} = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa} \leq j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}, \dots, j_{sa}^i\} \wedge$$

$$s > 5 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\sum_{k=l}^{()} \sum_{j_s=1}^{()} \sum_{j_{ik}=k+n-D}^{l_{ik}-1} \sum_{j_{sa}=j_{ik}+l_{sa}-l_{ik}}^{()} \sum_{i=n+k}^{(n_i-j_{ik}-k_1+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{ik}+j_{ik}-j_{sa}-k_2} \sum_{n_{sa}=n-j_{sa}+1}^{(n_i-n_{ik}-k_1-1)!} \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-k_1+1)!} \cdot \frac{(n_{ik}-n_{sa}-k_2-1)!}{(j_{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j_{sa}-k_2)!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-n-1)! \cdot (n-j_{sa})!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(l_{ik}-j_{ik}-l_s+1)! \cdot (j_{ik}-j_{sa}^{ik})!} \cdot \frac{(D+j_{sa}-l_{sa}-s)!}{(D+j_{sa}-n-l_{sa})! \cdot (n+j_{sa}-j_{sa}-s)!} - \sum_{k=l}^{()} \sum_{j_s=1}^{()}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_{sa}=j_{sa})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{()} \sum_{n_{sa}=n_{ik}+j_{ik}-j_{sa}-l_k}$$

$$\frac{(n_i + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik} - l_{k_1} - l_{k_2})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{ik} + j_{sa}^s - j_s - s - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)}{(D + s - n - l_i)! (n - s)!}$$

GÜLDÜNYA

DİZİN

B

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.1.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.1.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.2.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.2.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.1.1/230-231

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.1.1/187-188

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.2.1/230-231

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.2.1/187-188

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.2/230-231

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.3.1/187-188

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.4.1.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.4.1.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.4.2.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.4.2.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.4.3.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.4.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu

simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.1.1/233

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.1.1/190

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/324-325

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.2.1/233

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.2.1/190

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/324-325

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.3.1/233

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.3.1/190

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/324-325

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.4.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.4.1/190

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.4.1/1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.6.2.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.6.2.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu

bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.6.3.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.6.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.6.3.1/3-4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin durumuna bağlı

tek kalan simetrik olasılık,
2.3.3.1.1.1.1.1/190

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.1.1/80-81

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/165

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin durumuna bağlı

tek kalan simetrik olasılık,
2.3.3.1.1.2.1/118

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.2.1/80-81

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.2.1/165

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin durumuna bağlı

tek kalan simetrik olasılık,
2.3.3.1.1.3.1/118

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.3.1/80-81

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.3.1/165

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.1.1.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.1.1.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.1.2.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.1.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.1.3.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.1.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.2.1.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.2.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.2.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.2.2.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.2.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.2.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.2.3.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.2.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.2.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.4.1.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.4.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.4.2.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.4.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.4.3.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.4.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.6.1.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.6.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.6.2.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.6.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.6.3.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.6.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.7.1.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.7.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.7.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.7.2.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.7.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.7.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.2.7.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.2.7.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.2.7.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrisinin ilk
ve herhangi bir durumunun bulunabileceği
olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.1.1.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.1.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.1.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrisinin ilk ve herhangi bir durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.1.2.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.1.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.1.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrisinin ilk ve herhangi bir durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.1.3.1.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.1.3.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.1.3.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
simetrisinin ilk ve herhangi bir durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.2.1.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.2.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.2.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımsız simetrisinin ilk ve herhangi bir
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.2.2.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.2.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.2.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk ve herhangi bir
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.2.3.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.2.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrisinin
herhangi iki durumuna bağlı

- tek kalan simetrik olasılık, 2.3.3.1.4.1.1.1/4
- tek kalan düzgün simetrik olasılık, 2.3.3.2.4.1.1.1/3-4
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.4.1.1.1/5
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin herhangi iki durumuna bağlı
- tek kalan simetrik olasılık, 2.3.3.1.4.1.2.1/4
- tek kalan düzgün simetrik olasılık, 2.3.3.2.4.1.2.1/3-4
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.4.1.2.1/5
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin herhangi iki durumuna bağlı
- tek kalan simetrik olasılık, 2.3.3.1.4.1.3.1/4
- tek kalan düzgün simetrik olasılık, 2.3.3.2.4.1.3.1/3-4
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.4.1.3.1/5
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- tek kalan simetrik olasılık, 2.3.3.1.4.1.1.1/839-840
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- tek kalan simetrik olasılık, 2.3.3.1.4.1.2.1/839-840
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- tek kalan simetrik olasılık, 2.3.3.1.4.1.3.1/839-840
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- tek kalan simetrik olasılık, 2.3.3.1.5.1.1.1/5
- tek kalan düzgün simetrik olasılık, 2.3.3.2.5.1.1.1/4
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.1.1.1/7
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- tek kalan simetrik olasılık, 2.3.3.1.5.1.2.1/5
- tek kalan düzgün simetrik olasılık, 2.3.3.2.5.1.2.1/4
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.1.2.1/7
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- tek kalan simetrik olasılık, 2.3.3.1.5.1.3.1/5
- tek kalan düzgün simetrik olasılık, 2.3.3.2.5.1.3.1/4
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.1.3.1/7
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- tek kalan simetrik olasılık, 2.3.3.1.5.2.1.1/6
- tek kalan düzgün simetrik olasılık, 2.3.3.2.5.2.1.1/3-4
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.2.1.1/10
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- tek kalan simetrik olasılık, 2.3.3.1.5.2.2.1/6
- tek kalan düzgün simetrik olasılık, 2.3.3.2.5.2.2.1/3-4
- tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.2.2.1/10
- Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
- tek kalan simetrik olasılık, 2.3.3.1.5.2.3.1/5
- tek kalan düzgün simetrik olasılık, 2.3.3.2.5.2.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.2.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.1.1.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.1.2.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.1.3.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.2.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.2.2.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki

durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.2.3.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.1.1.1/4

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.1.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.1.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.2.1.1/6

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.2.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.2.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.2.2.1/6

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.2.2.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.2.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.2.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.2.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.4.1.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.4.1.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.4.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımsız simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.4.2.1/5-6

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.4.2.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.4.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.4.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.4.3.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.4.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.6.1.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.6.1.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.6.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
bağımsız simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.6.2.1/5-6

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.6.2.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.6.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.6.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.6.3.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.6.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.7.1.1/6

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.7.1.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.7.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
bağımsız simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.7.2.1/6

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.7.2.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.7.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.7.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.7.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.7.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrisinin ilk
herhangi bir ve son durumunun
bulunabileceği olaylara göre herhangi bir
ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.1.1.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.1.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.1.2.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.1.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.1.3.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.1.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.2.1.1/11

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.2.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımsız simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.2.2.1/11

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.2.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.2.3.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.2.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.4.1.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.4.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.4.2.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.4.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.4.3.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.4.3.1/11

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.6.1.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.6.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
bağımsız simetrisinin ilk herhangi bir ve son

durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.6.2.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.6.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.6.3.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.6.3.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.7.1.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.7.2.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.7.3.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.7.1.1.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.7.1.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.7.1.2.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.7.1.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.7.1.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.7.1.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.7.2.1.1/7

tek kalan düzgün simetrik olasılık,
2.3.3.2.7.2.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.7.2.2.1/7

tek kalan düzgün simetrik olasılık,
2.3.3.2.7.2.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.7.2.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.7.2.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.1.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.1.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.1/7

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.2.1/7

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.1.1.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.1.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık, 2.3.3.1.10.1.2.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.2.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık, 2.3.3.1.10.1.3.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.3.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık, 2.3.3.1.10.2.1.1/15

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık, 2.3.3.1.10.2.2.1/15-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık, 2.3.3.1.10.2.3.1/9-10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.3.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi iki ve son

durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık, 2.3.3.1.10.4.1.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık, 2.3.3.1.10.4.2.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık, 2.3.3.1.10.4.3.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.3.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık, 2.3.3.1.10.6.1.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık, 2.3.3.1.10.6.2.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı tek kalan simetrik olasılık, 2.3.3.1.10.6.3.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.3.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.7.1.1/15-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.7.2.1/15-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.7.3.1/9-10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.3.1/9-10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.1.1.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.1.2.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son

durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.1.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.3.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.2.1.1/17-18

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.2.2.1/17

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.2.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.3.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.4.1.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.4.2.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.4.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.3.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.6.1.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.6.2.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.6.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.3.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.7.1.1/17

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son

durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.7.2.1/17

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.7.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.3.1/10-11

VDOİHİ'de Olasılık ve İhtimal konularının tanım ve eşitlikleri verilmektedir. Ayrıca VDOİHİ'de olasılık ve ihtimalin uygulama alanlarına da yer verilmektedir. VDOİHİ konu anlatım ciltleri ve soru, problem ve ispat çözümlerinden oluşmaktadır. Bu cilt bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz olasılık dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu hariç dağılımın başlayabileceği diğer bir bağımlı durum olan ve bağımsız olasılıklı durumla başlayan dağılımın aynı ilk bağımlı durumuyla başlayan dağılımlarda, simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı tek kalan 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 herhangi iki duruma bağlı tek kalan düzgün olmayan simetrik olasılık kitabında, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu hariç dağılımın başlayabileceği diğer bir bağımlı durum olan ve bağımsız olasılıklı durumla başlayan dağılımın aynı ilk bağımlı durumuyla başlayan dağılımlarda, simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı tek kalan düzgün olmayan simetrik olasılığın, tanım ve eşitlikleri verilmektedir.

VDOİHİ'nin diğer ciltlerinde olduğu gibi bu ciltte de verilen ana eşitlikler, olasılık tablolarından elde edilen verilerle üretilmiştir. Diğer eşitlikler ise ana eşitliklerden teorik yöntemle üretilmiştir. Eşitliklerin üretilmesinde dış kaynak kullanılmamıştır.