

VDOİHİ

Bağımlı ve Bir Bağımsız Olasılıklı
Farklı Dizilimsiz Bağımlı Durumlu
Simetrisinin İlk Herhangi Bir ve Son
Durumunun Bulunabileceği Olaylara
Göre Herhangi Bir ve Son Duruma
Bağılı Toplam Düzgün Olmayan
Simetrik Olasılık
Cilt 2.3.1.3.9.1.1.5

İsmail YILMAZ

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VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı toplam düzgün olmayan simetrik olasılık Cilt 2.3.1.3.9.1.1.5

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1. Bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı toplam düzgün olmayan simetrik olasılık

Dili: Türkçe + Matematik Mantık



K. Atatürk

Türkiye Cumhuriyeti Devleti
Kuruluşunun
100. Yılı Anısına

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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Sanırım bilgi ve teknolojideki kaderimiz veriyle ilişkilendirilmiş.

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GÜLDÜNYA

Simge ve Kısaltmalar

n : olay sayısı

n : bağımlı olay sayısı

m : bağımsız olay sayısı

l : bağımsız durum sayısı

I : simetrimin bağımsız durum sayısı

ll : simetrimin bağımlı durumlarından önce bulunan bağımsız durum sayısı

I : simetrimin bağımlı durumlarından sonra bulunan bağımsız durum sayısı

lk : simetrimin bağımlı durumları arasındaki bağımsız durumların sayısı

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

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

l_i : 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 bulunduğu, 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

${}_fzS_{j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin son durumunun bulunabileceği olaylara göre simetrik olasılık

${}_fzS_{j_i,0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre simetrik olasılık

${}_fzS_{j_i,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre simetrik olasılık

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

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

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

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

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

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

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

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

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bağımlı simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre simetrik olasılık

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$fz S_{j_i}^{DSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu

simetrisinin son durumunun bulunabileceği olaylara göre toplam düzgün simetrik olasılık

$fz S_{j_i, 0}^{DSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre toplam düzgün simetrik olasılık

$fz S_{j_i, D}^{DSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre toplam düzgün simetrik olasılık

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durumlu simetrisinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre toplam düzgün olmayan simetrik olasılık

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simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre toplam düzgün olmayan simetrik olasılık

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$fz, 0S_{\Rightarrow j_s, j_{ik}, j^{sa}, j_i}^{DOSD}$: 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 toplam düzgün olmayan simetrik olasılık

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$fz,0S_{\Rightarrow j_s, \Rightarrow j_{ik}, j^{sa}, j_i, D}^{DOSD}$: 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 toplam düzgün olmayan simetrik olasılık

${}^0S_{fz \Rightarrow j_s, \Rightarrow j_{ik}, j^{sa}, j_i}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı toplam düzgün olmayan simetrik olasılık

${}^0S_{fz \Rightarrow j_s, \Rightarrow j_{ik}, j^{sa}, j_i, 0}^{DOSD}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı toplam düzgün olmayan simetrik olasılık

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E2

BAĞIMLI ve BİR BAĞIMSIZ OLASILIKLI FARKLI DİZİLİMSİZ DAĞILIMLAR

Bağımlı ve Bir Bağımsız Olasılıklı Farklı Dizilimsiz Dağılımlar

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

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

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

Bağımlı dağılım ve bir bağımsız olasılıklı durumla oluşturulabilen dağılımlara ve bağımlı olasılıklı dağılımların kendi olay sayısından (bağımlı olay sayısı) büyük olmasına (bağımsız olay sayısı) dağılımla bağımlı ve bir bağımsız olasılıklı dağılımlar elde edilir. Farklı dizilimsiz dağılımlarda, bu dağılımlara bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlar elde edilir. Bağımlı ve bir bağımsız olasılıklı dağılımlar; bağımlı dağılımlara, bağımsız durumlar ilk durumdan dağıtılmaya başlanarak tabloları elde edilir. Bu bölümde verilen eşitlikler, bu yöntemle elde edilen kurallı tablolara göre verilmektedir. Farklı dizilimsiz dağılımlarda durumların küçükten-

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

Farklı dizilimsiz dağılımlarda simetrinin durumlarının olasılık dağılımındaki sırasına göre simetrik olasılıkları etkilediğinden, bu bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımları da etkiler. Bu nedenle bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlarda, simetrinin durumlarının bulunabileceği olaylara göre simetrik olasılık eşitlikleri, simetrinin durumlarının olasılık dağılımındaki sıralamalarına göre ayrı ayrı verilecektir. Bu eşitliklerin elde edilmesinde bağımlı olasılıklı farklı dizilimsiz dağılımlarda simetrinin durumlarının bulunabileceği olaylara göre çıkarılan eşitlikler kullanılmaktadır. Bu eşitlikler, bir bağımlı ve bir bağımsız olasılıklı dağılımlar için VDO'nun Çizim 1'de çıkarılan eşitliklerle birleştirilerek, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımların yeni eşitlikleri elde edilecektir. Eşitlikleri adlandırılmasında bağımlı olasılıklı farklı dizilimsiz dağılımlarda kullanılan adlandırılmalar kullanılacaktır. Bu adlandırılmaya simetrinin bağımlı ve bağımsız durumlarına göre ve dağılımın bağımsız veya bağımlı duruma başlamasına göre "Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı/bağımsız-bağımlı/bağımlı-bir bağımsız/bağımlı-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 ad kullanılması durumunda gerekmedikçe yeni tanımlama yapılmayacaktır.

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

Bu şekilde bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlarda, simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı düzgün olmayan simetrik olasılığın eşitlikleri verilmektedir.

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

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

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

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

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

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

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

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

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

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

$$k_z: z = 1 \Rightarrow$$

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

GÜLDÜNYA

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

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

GÜLDÜZYA

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

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

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

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

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

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

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

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

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

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

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

$$fz \stackrel{DOSD}{\Rightarrow} j_s, j_{ik}, j_i = \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

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

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

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

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

GÜLDÜZMAYA

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

GÜLDÜNYA

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

GÜLDÜZYA

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

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

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

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

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

GÜLDÜMÜŞKA

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

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

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

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

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

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

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

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

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

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

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

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

$$S_{\Rightarrow j_s}^{DOSD} j_{ik} j_i = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

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

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

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

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

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

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

GÜLDÜM YA

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

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

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k})}^{(\)}$$

$$\frac{(n_i + j_{ik} - j_i - I - j_{sa}^{ik})!}{(n_i - n - I)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

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

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

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

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

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

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

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

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

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

$$s = \{j_{sa}^{i_s}, \dots, j_{sa}^{i_k}, j_{sa}^i\} \wedge$$

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

$$\mathbb{k}_Z: Z = \dots \Rightarrow$$

$$f_Z^{S \Rightarrow j_s, j_{ik}, j_i} = \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{\binom{()}{j_s=l_s+n-D}}^{(l_i+n-D-s)}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$l_k: z = 1 \Rightarrow$$

$$f_z^{DOSD}_{j_s, j_{ik}, j_i} = \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_i+n-D-s)} \right)$$

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

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

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

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

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

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

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

$$\sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_k)} \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\frac{(n_i + j_{ik} - j_i - I - j_{sa}^{ik})!}{(n_i - n - I)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot$$

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

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

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

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

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

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

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

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

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

$$s = \{j_{sa}^i, \dots, j_{sa}^{ik}, j_{sa}^i\} \wedge$$

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

$$\mathbb{k}_Z: Z = \dots \Rightarrow$$

$$f_Z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$k_z: z = 1 \Rightarrow$$

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

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

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

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

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

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

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

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

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

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

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

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

$$k_z: z = 1 \Rightarrow$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{j_s \rightarrow j_s, j_{ik}, j_i}^{D} = \sum_{k=1}^{i^{l-1} (j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

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

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

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

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

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

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

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

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

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

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

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

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

$$\frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

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

$$\sum_{k=1}^{(j_s)} \sum_{l=1}^{(j_s - k)} \sum_{i=1}^{(j_s - k - l)} \sum_{s=1}^{(j_s - k - l - i)} \frac{(n_i + j_i - j_i - k)!}{(n_i - k)! \cdot (n_i + j_i - k)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge \\ & j_{ik} = j_i + j_{sa}^{ik} - s \wedge \\ & (j_i + s - j_{sa}^{ik} \leq j_i \leq n) \vee \\ & (l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} \leq j_{ik} \wedge \\ & l_i \leq D - (s - n) \vee \\ & (D \geq n < n \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge \\ & j_{ik} = j_i + j_{sa}^{ik} - s \wedge \\ & (j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee \\ & (D \geq n < n \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge \\ & j_{ik} = j_i + j_{sa}^{ik} - s \wedge \end{aligned}$$

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

$$l_i - s + 1 > l_s \wedge$$

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

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

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

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

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

$$k_z: z = 1 \Rightarrow$$

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

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

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

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

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

$$(n_i - j_s + 1)$$

$$\sum_{(n_{is} + l_k - j_s + 1)}$$

$$n_{ik} - j_{ik} \quad (n_{ik} + j_{ik} - j_i - l_k)$$

$$\sum_{(n_s = n - j_i + 1)}$$

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

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

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

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

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

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

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

$$\sum_{k=1}^{()} \sum_{i^l (j_s=1)}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\begin{aligned}
 & \sum_{k=1}^{i-1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(n)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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

$$D \geq n < n \wedge l_s \geq 0 - n + \dots \wedge$$

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

$$j_{ik} = j_i + j_s - s \wedge$$

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

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

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

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

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

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

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

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

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

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s + j_{sa}^{ik} - k} \sum_{(j_i=1)}^{(n_i - j_{ik} + s - j_{sa}^{ik})} \frac{(n_i - j_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{k=i}^n \sum_{(j_s=1)}^{()}$$

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

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

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

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

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

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

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

$$\sum_{j_s=1}^{j_{ik}-j_{sa}^{ik}} \binom{D-l_i}{D+j_i-n-l_i-j_s} \binom{n-j_i}{n-j_i-j_s}$$

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

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \binom{n_i-j_s+1}{n_s=n_{ik}+j_{ik}-j_i-l_k}$$

$$\frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

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

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

$$\sum_{k=1}^{j_i} \sum_{j_s=1}^{()}$$

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

GÜLDÜNYA

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{ik}=n_i-j_{ik}+1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}$$

$$\frac{(n_i + j_{ik} - j_i - \mathbb{k} - j_{sa}^{ik})!}{(n_i - n - \mathbb{k})! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

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

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

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

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

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

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

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_i \leq D + s - n \wedge$$

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

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

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

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

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

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

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

$$l_i - s + 1 > l_s$$

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

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

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

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

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

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

$$fz^{S \Rightarrow j_s, j_{ik}, j_i} = \left(\sum_{k=1}^{i^{l-1} (j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \right)$$

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

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

$$n_{is}+j_s-j_{ik} \quad (n_{is}=n-l_k-j_s+1)$$

$$\sum_{n_{ik}=n+l_k-j_{ik}}^{\Delta} \sum_{(n_s=n-j_i+1)}$$

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

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

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

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

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

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

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

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

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

GÜLDÜZMAYA

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

GÜLDÜSÜZ

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

$$\sum_{k=1}^{n} \sum_{\substack{(\cdot) \\ (j_s=)}} \sum_{\substack{(\cdot) \\ (i=s)}} \sum_{\substack{(\cdot) \\ (i=s)}} \frac{(n_i + j_i - j_i - \mathbb{k})!}{(n_i - \mathbb{k})! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

- $D \geq n < n \wedge l_s \leq D - n \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{ik} = j_i + j_{sa}^{ik} - s$
- $j_i + s - j_{sa}^{ik} \leq j_i \leq n$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} \leq j_{ik} \wedge$
- $l_{ik} \leq l_s \wedge j_{sa}^{ik} - n \wedge$
- $D \geq n < n \wedge \mathbb{k} \geq 1 \wedge$
- $j_{sa}^{ik} - j_{sa}^s - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$
- $s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$
- $s = s + \mathbb{k} \wedge$
- $\mathbb{k}_z: z = 1 \Rightarrow$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

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

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

$$\sum_{k=1}^{(j_i)} \sum_{j_s=1}^{(j_s=k)}$$

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

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(\cdot)}{n_{ik}=n_i-j_{ik}+1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}$$

$$\frac{(n_i + j_{ik} - j_i - \mathbb{k} - j_{sa}^{ik})!}{(n_i - n - \mathbb{k})! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

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

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

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

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

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

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

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_i \leq D + s - n \wedge$$

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

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

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

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

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

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

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

$$l_i - s + 1 > l_s$$

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

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

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

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

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

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

$$fz_{S \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \left(\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}^{()}$$

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

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

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

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

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

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

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

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

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

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

$$\sum_{k=1}^{()} \sum_{(j_s=1)}^{()}$$

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

GÜLDÜZÜMÜSÜ

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

GÜLDÜNYA

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

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

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

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

$$\sum_{k=1}^{i-1} \sum_{j_s=2}^{l_s-k+1}$$

$$\sum_{j_{ik}=1}^{n_i - j_{ik} + 1} \sum_{j_i=1}^{n_i - j_i + 1}$$

$$\sum_{n_s=n-j_i+1}^{n_{ik} + j_{ik} - j_i - k}$$

$$\sum_{n_i=n+k}^n \sum_{n_i+l_k-j_{ik}+1}^{n_i-j_{ik}+1}$$

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

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

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

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

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

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

$$\sum_{k=1}^{i-1} \sum_{j_s=2}^{l_s-k+1}$$

GÜLDÜNKYA

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

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

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

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

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

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

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k} \frac{(n_i+j_{ik}-j_i-l_k-j_{sa}^{ik})!}{(n_i-n-l_k)! \cdot (n+j_{ik}-j_i-j_{sa}^{ik})!} \cdot \frac{(D-l_i)!}{(D+s-n-l_i)! \cdot (n-s)!}$$

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

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

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

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

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

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

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

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

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

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

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

$$fz \stackrel{DOSD}{\Rightarrow} j_s, j_{ik}, j_i = \sum_{k=1}^{D+l_s+s-n-l_i(j_{sa}^{ik}+1)} \sum_{j_s=j_s}^{(l_s+s-k)} \sum_{j_{ik}=j_i+j_s}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}}^{(n_i-n+\mathbb{k}-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n-j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

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

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

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

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

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

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

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

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

GÜLDÜZYA

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

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

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

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

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

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

$$\sum_{(n_{ik}+j_s-j_{ik}, \dots)}$$

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

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

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

$$\begin{aligned} & ((D \geq n < n \wedge l_s \leq D - n + 1 \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge \\ & j_{ik} = j_i + j_{sa}^{ik} - s \wedge \\ & j_{ik} - j_s - j_{sa}^{ik} \leq j_i \leq n \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge \\ & D + j_i - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}) \vee \end{aligned}$$

$$\begin{aligned} & (D \geq n < n \wedge l_s \leq D - n + 1 \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge \\ & j_{ik} = j_i + j_{sa}^{ik} - s \wedge \end{aligned}$$

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

$$l_i - s + 1 > l_s \wedge$$

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{(n_{ik}+k-j_s+1)} \sum_{(n_{ik}-j_i-k)}$$

$$\sum_{(n_s=n-j_i+1)} \sum_{(n_i-n_{is}-1)!}$$

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

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

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

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

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

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

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

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

GÜLDÜZYA

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

$$\frac{\sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{k=D}^{i^{l-1}} \sum_{j_s=2}^{(l_s-k+1)} \frac{1}{(n_{is} + j_s - n - l_i - j_{sa}^{ik} + 2)}$$

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

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

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

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

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

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

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

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

GÜLDÜMKA

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

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

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

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

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

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

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

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

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

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

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

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

$D \geq n < n \wedge l_i = n - 0 \wedge$

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

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

$s - 3 \wedge j_s \leq s + k \wedge$

$l_k: z = 1$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

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

GÜLDÜZMAYA

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

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

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

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

$$\sum_{k=1}^{l_i + j_{sa}^{ik} - s + 1} \sum_{j_s = j_{ik} - j_{sa}^{ik} + 1}^{j_{ik} - j_s - j_{sa}^{ik} + 1} \sum_{n_i = n + k}^n \sum_{n_{ik} = n + k}^{n_i - j_{ik} + 1} \sum_{n_s = n - j_i + 1}^{n_i - j_{ik} + 1} \sum_{n_s = n - j_i + 1}^{n_i - j_{ik} + 1}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$l_i - s + 1 > l_s \wedge$$

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

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

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

$$s \in \{j_{sa}^s, \dots, j_{sa}^s, \mathbb{k}_z, j_{sa}^i\} \wedge$$

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

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

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-j_s+1)}^{(n-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_{sa}^{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{is}-j_{ik}-l_k)} \\
 & \frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{is}-1)!}{(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}
 \end{aligned}$$

GÜLDÜZYAN

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{k=0}^{D+l_{ik}+s-n-l_i-j_{ik}+1} \sum_{j_s=2}^{(j_s-k+1)}$$

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

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

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

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

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

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

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

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

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

GÜLDÜMNA

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

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

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

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

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

$$\sum_{(n_{ik}-j_i-l_k)}^{(n_{ik}-j_i-l_k)}$$

$$\sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)}$$

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

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

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

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

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

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

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

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

GÜLDÜZYA

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

GÜLDENWA

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜNYA

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

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

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

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

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

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

$$D = n - s - n - l_i$$

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)}$$

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

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

$$\binom{n_i-j_{ik}}{n_{ik}+l_k-j_i-l_k} \sum_{(n_s=n-j_i+1)}$$

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

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

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

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

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

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

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

$$\sum_{k=i}^{()} \sum_{l(j_s=1)}$$

GÜLDÜZYA

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

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

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

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

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

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

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

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

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

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

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

$$l_i - s + 1 > l_s \wedge$$

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

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

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

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

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

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

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{SDOSD} = \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_i+n-D-s)} \right. \\ \left. \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \right) \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜZYAN

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

GÜLDENWA

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

GÜLDÜZMAYA

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

GÜLDENREYNA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GÜLDÜSÜMÜ

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

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

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

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

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

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

$$\sum_{n_{ik}=n_{ik}+j_s-j_{ik}}^{n_{ik}+j_s-j_{ik}} \binom{n_{ik}+j_s-j_{ik}}{n_{is}=n_{ik}+j_{ik}-j_i-k}$$

$$\frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

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

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

$$j_{ik} \geq n < n \wedge l_s \leq D - l_i + 1 \wedge$$

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

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

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

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

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

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

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

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

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

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

$$fz S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s-1)} \dots$$

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

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

GÜLDÜNYA

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

GÜLDÜZMAYA

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

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

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

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

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

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

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

$$\sum_{k=i}^{(\cdot)} \sum_{l=(j_s=1)}^{(\cdot)}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$D \geq n < n \wedge l_i - j_i \geq 0 \wedge$$

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

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

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

$$l_k: z = 1 \Rightarrow$$

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

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

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

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

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

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

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

$$\sum_{k=1}^{l_{ik} - l_s + 1} \sum_{(j_s=1)}^{()} \dots = \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{-j_{ik}+1} \sum_{(n_s=n-j_i+1)}^{n_{ik}+j_{ik}-j_i-l_k}$$

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

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

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

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

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

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

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

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

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

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

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

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

$$D \geq n < n \wedge l_s - l_k \geq 0$$

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

$$\{j_{sa}^s, j_{sa}^{ik}, l_k, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s - 1$$

$$l_k = l_s - 1$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-k)}$$

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

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

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

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

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

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

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

$$\sum_{j_{ik}=D+l_s+s}^{D-n+1} \sum_{j_s=l_s+n-D}^{l_i+k+1}$$

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

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

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

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

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

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

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

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

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

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

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

$$\sum_{(j_s=j_i+l_{ik}, \dots)}$$

$$\sum_{(n+l_k, \dots)}$$

$$\sum_{(n+l_k, \dots)}$$

$$\frac{(n_i + l_k - j_i - l - j_{sa}^{ik})!}{(n - n_i)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(n-j_s+1)}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{l_s + s - n - l_i} (j_s = j_{ik} - j_{sa}^{ik} + 1) \\
& \sum_{l_s = j_{sa}^{ik} - k}^{l_s} \sum_{j_i = j_{ik} + l_i - l_{ik}}^{()} \\
& \sum_{n_i = n + l_k}^n \sum_{(n_{is} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik}} \sum_{(n_s = n_{ik} + j_{ik} - j_i - l_k)}^{()} \\
& \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz \stackrel{DOSD}{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=0}^{l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_i=l_i+n-j_s)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)} \\
& \sum_{(n+l_k)}^n \sum_{(n_{is}=n_{ik}+1)}^{(n_{is}+1)} \\
& \sum_{(n+l_k-j_{ik})}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i)}^{(n_{ik}+j_{ik}-j_i)} \\
& \frac{(n_{is}-1)! \cdot (n_{is}-n_{is}-j_s+1)!}{(n_{is}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
& \frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
& \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)}
\end{aligned}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - j_i - n_{i_s} - 1)!}{(n_s - j_i - n_{i_s} - j_i - j_{i_k} - 1)!} \cdot \\
 & \frac{(n_{i_s} - j_s - n_{i_k} - 1)! \cdot (j_s - 2)!}{(n_{i_s} - j_s - n_{i_k} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!}{(n_{i_s} + l_{i_k} - j_{i_k} - j_{s_a}^{i_k})! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{i_k}=j_s+j_{s_a}^{i_k}-1} \sum_{(j_i=j_{i_k}+l_i-l_{i_k})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n_{i_k}+j_{i_k}-j_i-l_k)}^{(\quad)} \\
 & \frac{(n_i + j_{i_k} - j_i - l - j_{s_a}^{i_k})!}{(n_i - n - l)! \cdot (n + j_{i_k} - j_i - j_{s_a}^{i_k})!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} S_{\Rightarrow j_s}^{DOSD} j_{ik} j_i &= \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \\ &\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-k)} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i - 1)!}{(D + j_i - n - l_i)! \cdot (j_i - 1)!} + \\
& \sum_{k=0}^{D+l_s+j_i-n-l_i} \sum_{l=0}^{l_s-k+1} \sum_{m=0}^{l+n-D} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \sum_{(j_i=l_s+s-k+1)}^{(n_i-j_s+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
 & \sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}^{(n_{is}+1)} \\
 & \sum_{n+l_k-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-n_{is})}^{(n_{ik}+j_{ik}-j_i-n_{is}+1)} \\
 & \frac{(n_{is}-n_{ik}-1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-k)}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k})}^{(\)}$$

$$\frac{(n_i + j_{ik} - j_i - I - j_{sa}^{ik})!}{(n_i - n - I)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - \mathbb{k} - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge$

$s = \{j_{sa}^s, \dots, j_{sa}^{s-1}, j_{sa}^s\} \wedge$

$s = 3 \wedge s = s + \mathbb{k}$

$\mathbb{k}_Z: Z = \dots \Rightarrow$

$$f_Z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \\
& \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
& \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_s=l_s+\mathbf{n}-D)}^{(l_s-k+1)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbf{l}_k}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbf{l}_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(D + j_s - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{j_i = l_{ik} + l_s + s - 1}^{D - n + l_{ik} + l_s + s} \sum_{j_s = l_s + n - D}^{(l_s - k + 1)} \binom{n_i - j_s + 1}{n_i = n + l_k} \binom{n_i - j_s + 1}{n_{is} = n + l_k - j_s + 1} \\
& \sum_{n_{ik} = n + l_k - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{n_s = n - j_i + 1}^{(n_{ik} + j_{ik} - j_i - l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=l_{ik}+l_i-l_{ik})}^{()} \sum_{l_{ik}+j_s-j_{ik}}^n \sum_{(n_i=j_i-l_{ik})}^{(n_i+l_{ik}+1)} \frac{(n_i+j_{ik}-j_i-l-j_{sa}^{ik})!}{(n_i-l_{ik}-1)! \cdot (n_i-j_{ik}-j_i-j_{sa}^{ik})!} \cdot \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > n - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_s \wedge l_{ik} - j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D - n - l_i \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{S_{DOSD}} &= \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_{ik}+n-D-j_{sa}^{ik})} \\
 &\quad \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 &\quad \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\quad \sum_{n_{ik}=n+k}^{n_i+j_s} \sum_{(n_s=n-j_i)}^{(n_{ik}+j_i-j_i-k)} \\
 &\quad \frac{(n_i - n_s - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\quad \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \\
 &\quad \frac{(n_i - n_s - 1)!}{(n_{ik} + j_{ik} - n_s - j_i)!} \\
 &\quad \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 &\quad \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 &\quad \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\quad \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\quad \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 &\quad \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 &\quad \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - n - 1)!}{(j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
& \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=1}^{D+l_s+s-n-l_i} \sum_{j_{ik}=j_s}^{(l_s-k+1)} \sum_{j_{sa}^{ik}=j_{ik}-j_s+1}^{(j_{ik}-j_s+1)} \sum_{j_i=j_s+j_{sa}^{ik}-1}^{(j_i=j_{ik}+l_i-l_{ik})} \sum_{n_i=n+l_k}^n \sum_{n_s=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k}^{(j_i-j_s+1)} \\
& \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$n - j_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z^{DOSD} \Rightarrow j_s, j_{ik}, j_i$$

$$\sum_{i=1}^{l-1} \sum_{(j_s=2)}^{(k+1)}$$

$$\sum_{(l_s+s-k)} \sum_{(j_i+l_{ik}-l_i) (j_i=s+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-k+1)} \sum_{(j_i+s-k+1)}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n_{is}+1)}$$

$$\sum_{n+l_k-j_{ik}}^{(n_{ik}+j_{ik}-j_i-1)} \sum_{(n_{is}-j_i+1)}$$

$$\frac{(n_{is} - 1)! \cdot (n_{is} - j_s + 1)!}{(n_{is} - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - 1)!}{(n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{()} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-i^{l+1})} \sum_{(j_i=s)}$$

GÜLDÜMÜYÜ

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - j_{sa} + 1)! \cdot (j_{ik} - j_{sa} - l_k)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{l-1} \sum_{(j_s=j_{ik}-j_{sa}^k+1)}^{()} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=s+1)}^{(l_s+s-k)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{lk})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{lk})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{()} \sum_{i,l}^{(j_s=1)}
 \end{aligned}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}} \frac{(n_i + j_{ik} - j_i - \mathbb{k} - j_{sa}^{ik})!}{(n_i - n - \mathbb{k})! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - \mathbb{k} - l_i - 1)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_s^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\}$$

$$s = 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{i^{l-1} (j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s + j_{sa}^{ik} - k} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + 1 - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)} \\
& \sum_{j_{ik}=\mathbf{l}_s+j_{sa}^{ik}-k+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})} \binom{(\quad)}{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbf{l}_k}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbf{l}_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i - 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=0}^{l_i + j_{sa}^{ik} - s + 1} \sum_{j_s=1}^{()} \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n-j_{ik}+1} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

GÜLDÜMNA

$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
& \frac{(n_i+j_{ik}-j_i-l_k-j_{sa}^{ik})!}{(n_i-n-l)! \cdot (n+j_{ik}-j_i-l_k-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l_k-1)!}{(l_s-l_k+1) \cdot (j_s-2)!} \\
& \frac{(D-l_i)!}{(D+j_i-l_i)! \cdot (n-j_i)!} \\
& \sum_{k=l}^{()} \sum_{(j_s=1)}^{()} \\
& \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j_i=s)}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k} \\
& \frac{(n_i+j_{ik}-j_i-l_k-j_{sa}^{ik})!}{(n_i-n-l_k)! \cdot (n+j_{ik}-j_i-l_k-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-n-l_i)! \cdot (n-s)!}
\end{aligned}$$

$$D \geq n < l_s \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz \stackrel{DOSD}{\Rightarrow} i, j_{ik}, j_i \sum_{k=1}^{l-1} \sum_{j=0}^{n-k+1} \binom{l-1-k+1}{j} \sum_{j_s=j_{sa}^{ik}-1}^{l+j_{sa}^{ik}-k-1} \binom{l-1-k+1}{j_s} \sum_{n_i=n+\mathbb{k}}^{n_i-j_s+1} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_i-j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_i+j_{sa}^{ik}-i^{l-s+1}} \sum_{(j_i=j_{ik}+l_i-1)}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n+l_k-j_i+1)}^{(n_{ik}+j_{ik}-j_i-1)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - 1)!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_i + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_{ik} - j_i - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_i - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{i^l-1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()}$$

$$\frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

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$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{(j_s-1)} \sum_{l_i=1}^{(j_s-1-k)} \sum_{j_i=1}^{(j_s-1-k-l_i)} \frac{(n_i + j_i - j_i - k)!}{(n_i - k)! \cdot (n_i + j_i - j_i - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

- $D \geq n < n \wedge l_s \leq D - n + 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{ik} = j_i + j_{sa}^{ik} - s$
- $j_i + s - j_{sa}^{ik} \leq j_i \leq n$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \leq l_i + j_{sa}^{ik} - s \leq j_{ik} \wedge$
- $D + s - n < l_i \leq D + s - n - 1 \wedge$
- $D \geq n < n \wedge k \geq 1 \wedge$
- $j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$
- $s: \{j_{sa}^s, \dots, j_{sa}^{ik}, k, j_{sa}^i\} \wedge$
- $s - j_{sa}^s = s + k \wedge$
- $k_z: z = 1 \Rightarrow$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-k)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_s-n_s)!}{(j_i+l_k-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_i-1)!}{(n_s+n_j-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_s+s-k+1)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_{ik} - k + 1)! \cdot (l_s - j_{ik} - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{i=0}^{l_i} \sum_{j_s=2}^{(l_s-k+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-k+1)} \sum_{j_i=l_i+n-D}^{(l_i-k+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{()} \sum_{(j_s=1)}$$

$$\sum_{(l_i=1)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n}^n \sum_{(n_{ik}=n+l_{ik}-j_s+1)} \sum_{n_s=n-j_i+1}^{(n_i-j_{ik}+1)} \sum_{(n_s-j_i-k)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-k)}$$

$$\sum_{n_i=n+l_{ik}}^n \sum_{(n_{is}=n+l_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}} \frac{(n_i + j_{ik} - j_i - I - j_{sa}^{ik})!}{(n_i - n - I)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik}$

$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$

$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_i\} \wedge$

$s = 3 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$fz \overset{DOSD}{\Rightarrow} j_s, j_{ik}, j_i = \sum_{k=1}^{D+l_s+s-n-l_i(j_{ik}-j_{sa}^{ik}+1)} \sum_{\binom{()}{j_s=2}} \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{\binom{()}{j_i=j_{ik}+l_i-l_{ik}}} (n_i - j_s + 1) \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \\
 & \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜMÜŞKA

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(n - l_i)!}{(D + j_i - n - l_i)! \cdot (j_i)!} + \\
 & \sum_{i=D+l_s+1}^{l_s-k+1} \sum_{j_s=2}^{(l_s-k+1)} \sum_{j_{ik}=l_i}^{l_i+j_{sa}^{ik}-1} \sum_{j_{sa}^{ik}=j_{sa}^{ik}-D-s}^{(j_i=j_{ik}+l_i-l_{ik})} \binom{n}{n_i=n+l_k} \binom{n_i-j_s+1}{n_{is}=n+l_k-j_s+1} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

GÜLDÜMVA

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{l_i + j_{s_a}^{ik} - l_i - s + 1} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{s_a}^{ik}-D-s}^{()} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n_i-j_i-l_k)}^{(n_{ik}=n_i-j_i-l_k)} \\
 & \frac{(n_i - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_i - n_s - j_{ik} + 1)!} \cdot \\
 & \frac{(n_i - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_i - n_s - j_{ik} + 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s - j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - j_{ik} - l_s - j_{s_a}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{s_a}^{ik})!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{s_a}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{s_a}^{ik}-D-s}^{l_s+j_{s_a}^{ik}-k} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()}
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z^{S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD}} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_i+n-D-s)} \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(l_i - l_j)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+s-n-l_i} \sum_{j_s=l_i+n-D-s+1}^{l_i} (j_s = l_i + n - D - s + 1) \\
 & \sum_{i_k=j_s+j_{sa}^{ik}-1}^{l_i} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(j_i)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜMNA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_i+n_{is}-j_{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \dots$$

$$\sum_{n_{is}=n_{ik}+l_k-j_s+1}^{(n_i-j_s+1)} \dots$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=i}^{()} \sum_{(j_s=1)}$$

GÜLDÜNYA

$$\begin{aligned}
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-i-l-s+1} \binom{(\quad)}{\quad} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_k-j_{ik}+1}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l_i - j_{ik} - 1)!}{(l_s - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=1}^{D+l_s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \binom{(\quad)}{\quad} (j_i=j_{ik}+l_i-l_{ik}) \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \binom{(\quad)}{\quad} (n_s=n_{ik}+j_{ik}-j_i-l_k) \\
 & \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

GÜLDÜZÜM

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=1}^{D+l_s} \sum_{(j_s=2)}^{n-l_i(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-k)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}
 \end{aligned}$$

GÜLDÜNKYA

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{D+l_s+s-n+l_i+l_s-k+1} \sum_{j_s=2}^{(l_s-k+1)} \\
& \frac{(l_{ik} + j_s - 1)!}{(j_i + l_{ik} - l_i - j_s + 1)! \cdot (l_s + s - k + 1)!} \cdot \\
& \sum_{j_s=1}^{(j_s+1)} \\
& \frac{(n_{is} + k - 1)!}{(n_{is} + k - j_s + 1)!} \cdot \\
& \sum_{n_{ik}=n_{is}+k-j_{ik}+1}^{(j_s-j_{ik})} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
\end{aligned}$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{l-1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^k+1)}^{(l_{ik}+s-k-j_{sa}^k+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1} \sum_{(n_s=n-j_i+l_{ik}-j_{ik}+1)}^{(n_{is}+j_s-j_{ik}+j_{ik}-j_i-l_k)}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{is}-n_s-1)!}{(n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^k+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^k+1)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^k)}^{(l_{ik}+s-l-j_{sa}^k+1)}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - j_{sa} + 1)! \cdot (j_{ik} - j_{sa} - l_k)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-k)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}}^{(j_s-j_{ik}+1)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(j_s-j_{ik}+1)} \\
 & \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=1}^{D+s-n-j_{ik}-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{l_{ik}=n-D}^{l_s+j_{sa}^{ik}} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(j_i=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$D + l_s + s - n - l_i \quad (l_s - k + 1)$$

$$\sum_{k=1} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s+l_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_{ik}=l_s+l_{sa}^{ik}-k+1)}^{(n_i - j_s + 1)}$$

$$(n_i - j_s + 1)$$

$$\sum_{n+l_k}^{(n_i - j_s + 1)}$$

$$\sum_{(n_i - j_s + 1)}$$

$$\sum_{=n+l_k-j_s+1}^{(n_i - j_s + 1)} \sum_{(n_s = n - j_i + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_s - n_s)!}{(j_i - l_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s - j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s - l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=i}^{()} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{D+l_s+s} \binom{D+l_s+s-k}{j_s=j_{ik}-j_{sa}^{ik}} \cdot \\
& \sum_{j_{ik}=j_{ik}+n-D}^{j_{ik}-k} \binom{j_{ik}-k}{(j_i=j_{ik}+l_i-l_{ik})} \cdot \\
& \sum_{n_i=n+l_k}^{n_i} \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \cdot \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k}^{(n_s-j_s+1)} \cdot \\
& \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D + n - l_s \leq l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \frac{\sum_{k=0}^{D+l_s+s-n-l_i} \sum_{(j_s-2)}^{(n-D-j_{sa}^{ik})} \sum_{i_{ik}=l_{ik}+n-j_{ik}}^{k+1} \sum_{i=j_{ik}+l_i-l_{ik}}^{i_{ik}+1} \sum_{n_{is}+k}^{n_{is}+k} \sum_{n_{is}=n+k-j_s+1}^{n_{is}+k} \sum_{n_{ik}+k-j_{ik}+1}^{n_{ik}+k-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-l_k)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \sum_{n_{ik}=n+l_k-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+l_{ik})}^{(n_s=n-j_i+l_{ik})} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=D+l_s+s-n-l_i+1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
& \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
\end{aligned}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{()} \sum_{l}^{()} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_i-l_{ik}+l_i-l_{ik})} \sum_{(n_i=j_{ik}+1)}^{(n_i+l_{ik}+1)} \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - j_{ik} - l)! \cdot (n_i - j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > n - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1$$

$$j_{ik} = j_i + j_{sa}^{ik} - s$$

$$j_{ik} + s + j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{ik} - j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D - n = l_s \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{S_{DOSD}} = & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_i+n-1)}^{(n_i-j_s+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_s+1}^{(n_{ik}+j_i-j_{ik})} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_i-j_{ik})} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - n_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-k+1)} \sum_{(j_i=l_s+s-k+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
& \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
& \frac{(n_{ik} - n_s - \mathbf{l}_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbf{l}_k)!} \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \\
& \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
& \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=D+l_s+s-\mathbf{n}-l_i+1}^{D-\mathbf{n}+1} \sum_{(j_s=l_s+\mathbf{n}-D)}^{(l_s-k+1)} \\
& \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+\mathbf{n}-D)}^{(l_i-k+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbf{l}_k}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbf{l}_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-j_i} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(j_s - j_{sa}^{ik} + 1)} \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_i+n-D)}^{(n_i-j_s+1)} \\
& \sum_{n_i=n+k}^n \sum_{(n_s=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}}^{(j_s - j_{sa}^{ik} + 1)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k)}^{(j_s - k - 1)!} \\
& \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$n - j_s + 1 \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$fz \stackrel{DOSD}{S \Rightarrow j_s, j_{ik}, j_i} = \binom{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1}{j_{sa}^{ik}+1} \binom{j_{sa}^{ik}+1}{j_s-l_s} \binom{l_s+s-k}{n-D} \binom{n_i-j_s+1}{n_i=n+k} \binom{n_i-j_s+1}{n_{is}=n+k-j_s+1} \binom{j_s-j_{ik}}{n_{ik}=n+k-j_{ik}+1} \binom{n_{ik}+j_{ik}-j_i-k}{n_s=n-j_i+1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \sum_{(j_i=l_s+s-k+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}}^{n_i+j_s-j_{ik}} \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_s+1}^{(n_i-j_s+1)} \sum_{(n_s=n-j_i+l_k)}^{(n_i-j_s+1)} \\
 & \frac{(n_s-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-l_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_s-l_k-1)!}{(j_i-l_k-1)! \cdot (l_k+j_{ik}-n_s-j_i-l_k)!} \cdot \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \left(\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \right) + \\
 & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 & \left. \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_i+n-D)}^{(l_s+s-k)} \right)
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i)!}{(n_s - j_i - n - l_i - j_i - k - 1)!} \cdot \\
 & \frac{(n - j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(n - j_s - n - l_i - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_s+s-k+1)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

GÜLDÜŞÜMÜ

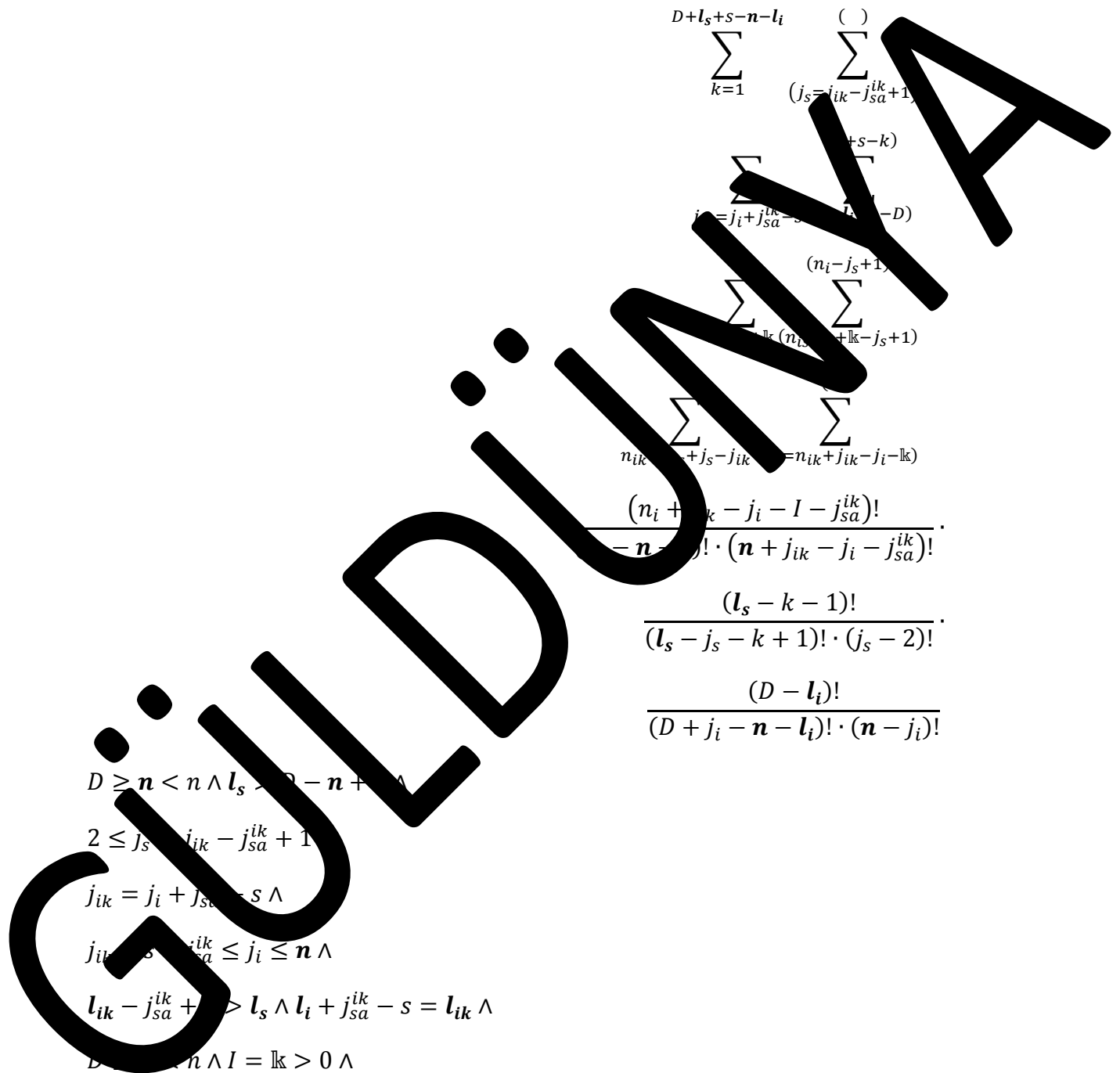
$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=l_{ik}+s-k-j_{sa}^{ik}+2)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - l_{ik} - s)!} \cdot \\
& \frac{(D - n + 1)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!} + \\
& \sum_{k=D+l_{ik}}^{D-n+1} \sum_{j_{sa}^{ik}=n-l_i-j_{sa}^{ik}}^{(l_s-k+1)} \sum_{j_{ik}=l_{ik}+n-D}^{(l_i-k+1)} \sum_{j_i=l_i+n-D}^{(n-j_s+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(n-j_s+1)} \dots$$

$D \geq n < n \wedge l_s > 0 - n + \dots$
 $2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$
 $j_{ik} = j_i + j_{sa}^{ik} - s \wedge$
 $j_{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge$
 $l_{ik} - j_{sa}^{ik} + \dots > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$
 $D > n \wedge I = \mathbb{k} > 0 \wedge$
 $j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$
 $s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$
 $s > 3 \wedge s = s + \mathbb{k} \wedge$



$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s}^{DOSD} j_{ik} j_i = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n-j_s+1)} \sum_{n_i=n+l_i}^n \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_i - n_s - \mathbb{k} - 1)!}{(j_s + j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \sum_{j_{ik}=l_s+j_{sa}^{ik}-k-s+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n-j_s+1)}$$

GÜLDÜMÜSÜ

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{i_s} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)!} \cdot \\
 & \frac{(j_s - n - l_k - 1)!}{(j_s - n - l_k - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot
 \end{aligned}$$

GÜLDÜSÜZ

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$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{l_s + s - n - l_i} (j_s = j_{ik} - j_{sa}^{ik} + 1) \\
& \sum_{k=0}^{l_s} \binom{l_s - k}{n + j_{sa}^{ik} - D - s} (j_i = j_{ik} + s - j_{sa}^{ik}) \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik}} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k)}^{()} \\
& \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \binom{D+l_{ik}+s-j_{sa}^{ik}-l_i-j_{sa}^{ik}+1}{\sum_{k=1}^{D+l_{ik}+s-j_{sa}^{ik}-l_i-j_{sa}^{ik}+1}} \binom{j_i+1}{\sum_{j_s=l_s+n-D}^{j_i+1}}$$

$$\binom{j_{sa}^{ik}-k}{\sum_{j_i=l_i+n+j_{sa}^{ik}-s}^{j_{sa}^{ik}-k}} \binom{j_i}{\sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{j_i}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=l_i+n-D)}^{(n_i-j_i+1)} \\
 & \frac{(n_i-j_i+1)!}{(n+l_k) \cdot (n_{is}=n_i+l_k+1)!} \cdot \frac{(n_{is}+j_s-j_{ik})!}{(n_{ik}+j_{ik}-j_i-l_k)!} \\
 & \frac{(n+l_k-j_{ik})!}{(n+l_k-j_{ik})! \cdot (n_{is}-j_i+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!} \\
 & \frac{(n_{is}-n_{ik}-1)!}{(n_{is}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-l_k-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_k)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) + \\
 & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 & \left. \sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \right)
 \end{aligned}$$

GÜLDÜZYA

GÜLDEN

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{i_s} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i - 1)!}{(n_s - j_i - n - l_i - j_i)!} \cdot \\
 & \frac{(j_i - j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(j_i - j_s - n - l_i - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{i_s} - j_{s_a}^{ik} + 1)!}{(j_i + l_{ik} - j_{i_s} - j_{s_a}^{ik})! \cdot (j_{ik} - j_s - j_{s_a}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{s_a}^{ik} - l_{ik} - s)!}{(j_i + l_i - j_i - l_{ik})! \cdot (j_i + j_{s_a}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{s_a}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{s_a}^{ik}+1)} \\
 & \sum_{j_{ik}=l_i+n+j_{s_a}^{ik}-D-s}^{l_s+j_{s_a}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{s_a}^{ik}+1)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_{sa} - k + 1)! \cdot (l_s - j_{sa} - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^k - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik}+1)}^{(l_i-k+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - l_{ik} - s)!} \cdot \\
& \frac{(D - n + 1)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!} + \\
& \sum_{k=D+l_{ik}}^{D-n+1} \sum_{l_i=l_{ik}+n-D}^{l_s-k+1} \sum_{j_i=l_i+n-D}^{(l_s-k+1)} \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \left(\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_i+n}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}-j_{sa}^{ik})}^{()}$$

$$\sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - j_s + 1)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > -n +$$

$$2 \leq j_s = j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + s > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_Z: z = 1 \Rightarrow$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} &= \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_i+n-D-s)} \\
 &\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-k-s+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(j_s+1)} \\
 &\sum_{n_i=n+l_i+j_{sa}^{ik}-k-s+1}^n \sum_{(n_{ik}+j_{ik}-k)}^{(n_{ik}+j_{ik}-k)} \\
 &\sum_{n_{is}=n+l_i+j_{sa}^{ik}-k-s+1}^{n+l_i+j_{sa}^{ik}-k-s+1} \sum_{(n_{ik}+j_{ik}-k)}^{(n_{ik}+j_{ik}-k)} \\
 &\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik})!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{ik} - n_s - k - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 &\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(j_s+1)}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i = n + l_k}^n \sum_{(n_{i_s} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{i_k} = n + l_k - j_{i_k} + 1}^{n_{i_s} + j_s - j_{i_k}} \sum_{(n_s = n - j_i + 1)}^{(n_{i_k} + j_{i_k} - j_i - l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - l_k - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i)!}{(n_s - j_i - n - l_i - j_i - k - 1)!} \cdot \\
 & \frac{(n_i - j_s - n - l_i - j_i - k - 1)!}{(n_i - j_s - n - l_i - j_i - k - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!}{(n_i + l_{i_k} - j_{i_k} - j_{s_a}^{i_k})! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k = D + l_s + s - n - l_i + 1}^{D - n + 1} \sum_{(j_s = l_s + n - D)}^{(l_s - k + 1)} \\
 & \sum_{j_{i_k} = l_i + n + j_{s_a}^{i_k} - D - s}^{l_i + j_{s_a}^{i_k} - k - s + 1} \sum_{(j_i = j_{i_k} + s - j_{s_a}^{i_k})}^{(\quad)} \\
 & \sum_{n_i = n + l_k}^n \sum_{(n_{i_s} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{i_k} = n + l_k - j_{i_k} + 1}^{n_{i_s} + j_s - j_{i_k}} \sum_{(n_s = n - j_i + 1)}^{(n_{i_k} + j_{i_k} - j_i - l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{D-s-n-l_i} \sum_{j_s=l_i+n-D-s+1}^{(1)} \\
& \sum_{i_k=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k})}^{()} \\
& \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{SDSD} = \binom{D+l_{ik}+s-l_i-j_{sa}^{ik}+1}{\sum_{k=1}^{D+l_{ik}+s-l_i-j_{sa}^{ik}+1}} \binom{n-s}{\sum_{j_s=l_s+n-D}^{n-s}}$$

$$\binom{l_{ik}-k}{\sum_{j_{ik}=l_i+n+j_s-D-s}^{l_{ik}-k}} \binom{j_i}{\sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{j_i}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

GÜLDÜNKYA

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=l_i+n-D-s+1)}^{(n - j_i + 1)} \\
 & \sum_{(n+l_k - n_{is} - 1)}^{(n_{ik} + j_{ik} - j_i - 1)} \sum_{(n_{ik} + j_{ik} - j_i - 1)}^{(n_{ik} + j_{ik} - j_i - 1)} \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \frac{(n_{ik} - n_{ik} - 1)!}{(n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) + \\
 & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_i+n-D-s)}^{(l_i+n-D-s)} \right. \\
 & \left. \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \right)
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - l_k - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i)!}{(n_s - j_i - n - l_i - j_i - k - 1)!} \cdot \\
 & \frac{(n - j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(l_{i_k} - j_{i_s}^{i_k} + 1)!} \cdot \\
 & \frac{(j_i + l_{i_k} - j_{i_s}^{i_k})! \cdot (j_{i_k} - j_s - j_{i_s}^{i_k} + 1)!}{(j_i + l_i - j_i - l_{i_k})! \cdot (j_i + j_{i_s}^{i_k} - j_{i_k} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{i_k}+s-n-l_i-j_{i_s}^{i_k}+1} \sum_{(j_s=l_s+n-D)}^{(l_i+n-D-s)} \\
 & \sum_{j_{i_k}=l_{i_k}+n-D}^{l_{i_k}-k+1} \sum_{(j_i=l_{i_k}+s-k-j_{i_s}^{i_k}+2)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)}
 \end{aligned}$$

GÜLDÜZMAYA

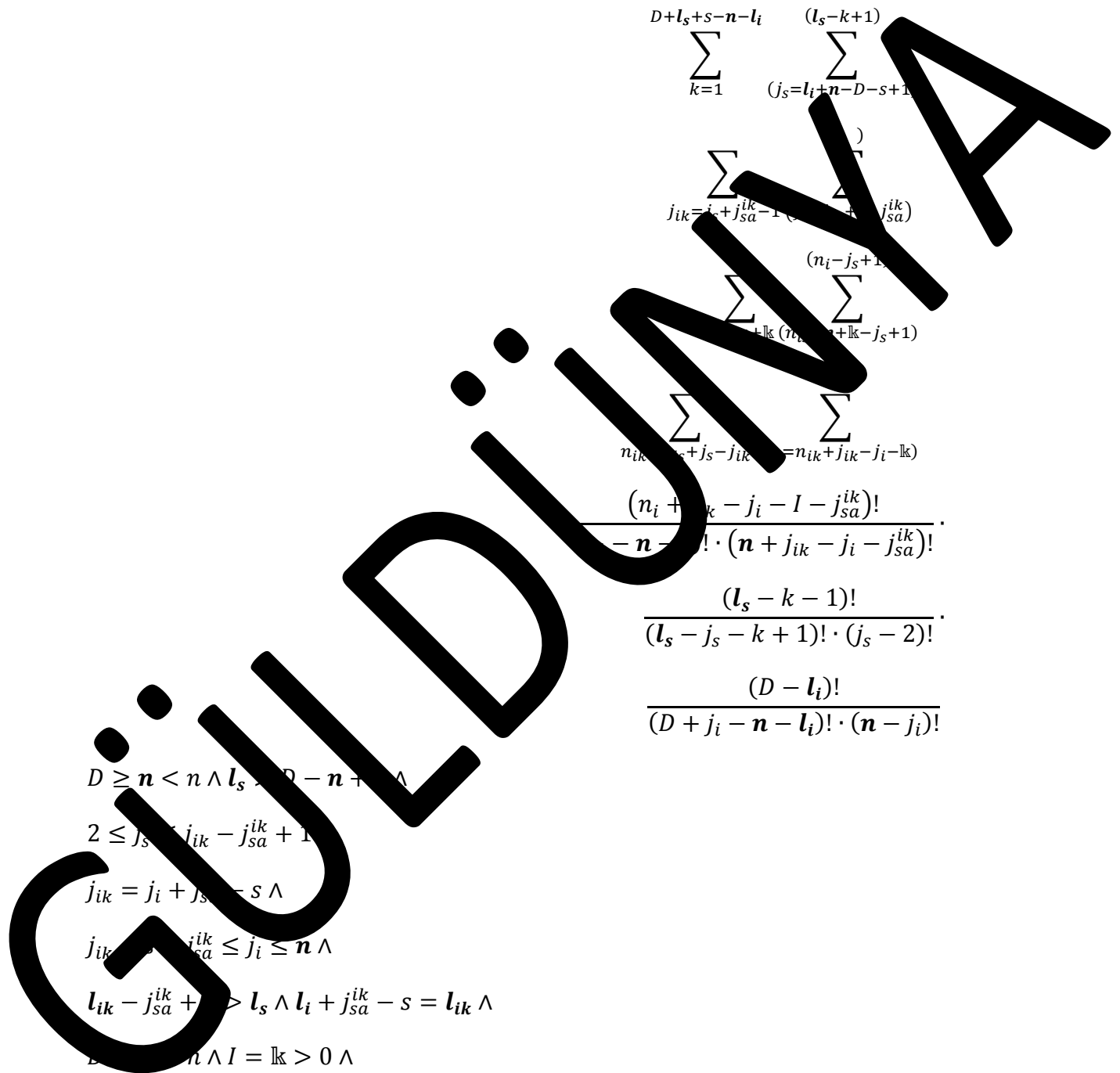
$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_{sa} - k + 1)! \cdot (j_{sa} - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^k - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{l_{ik} - j_{sa}^{ik} + 1} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_s - k + 1)} \cdot \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{l_{ik} - k + 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik} + 1)}^{(l_i - k + 1)} \cdot \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \cdot \\
 & \sum_{n_{ik} = n + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k})} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}
 \end{aligned}$$

GUIDANCE

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - l_{ik} - s)!} \cdot \\
& \frac{(D - j_i - 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=D+l_i}^{D-n+1} \sum_{j_{sa}^{ik}=n-l_i-j_s}^{(l_s-k+1)} \sum_{j_{ik}=l_{ik}+n-D}^{(l_i-k+1)} \sum_{j_i=l_i+n-D}^{(n_i-j_s+1)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \dots$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$
 $2 \leq j_s < j_{ik} - j_{sa}^{ik} + 1$
 $j_{ik} = j_i + j_s - s \wedge$
 $j_{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge$
 $l_{ik} - j_{sa}^{ik} + j_s > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$
 $D > n \wedge I = \mathbb{k} > 0 \wedge$
 $j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$
 $s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$
 $s > 3 \wedge s = s + \mathbb{k} \wedge$



$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s}^{DOSD} j_{ik} j_i = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(n-j_s+1)}$$

$$\sum_{n_i=n+l_s-j_{sa}^{ik}}^n \sum_{(n_i+j_{sa}^{ik})}^{(n+l_s-j_s+1)}$$

$$\sum_{n_{is}=n+l_s-j_{ik}}^{(n_{ik}+j_{ik}-n_{is})} \sum_{(n_{ik}+j_{ik}-n_{is})}^{(n-j_i+1)}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik})}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \sum_{(j_i=l_s+s-k+1)}$$

GÜLDÜMÜŞA

$$\begin{aligned}
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{i_s} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k} - j_{ik} + 1}^{n_{i_s} + j_s - j_{ik}} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k})} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - j_i - n - \mathbb{k} - 1)!}{(n_s - j_i - n - \mathbb{k} - 1)!} \cdot \\
 & \frac{(n - j_s - n - \mathbb{k} - 1)!}{(n - j_s - n - \mathbb{k} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k = D + l_s + s - n - l_i + 1}^{D - n + 1} \sum_{(j_s = l_s + n - D)}^{(l_s - k + 1)} \\
 & \sum_{j_{ik} = j_i + j_{sa}^{ik} - s} \sum_{(j_i = l_{ik} + n + s - D - j_{sa}^{ik})}^{(l_{ik} + s - k - j_{sa}^{ik} + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{i_s} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k} - j_{ik} + 1}^{n_{i_s} + j_s - j_{ik}} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k})} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot
 \end{aligned}$$

GÜLDÜSÜZ

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{l_s + s - n - l_i} (j_s = j_{ik} - j_{sa}^{ik} + 1) \\
& \sum_{j_{sa}^{ik} = j_{sa}^{ik} - s}^{l_s + s - k} (j_i = l_{ik} + n + s - D - j_{sa}^{ik}) \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik}} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k)}^{()} \\
& \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz \overset{DOSD}{S \Rightarrow j_s, j_{ik}, j_i} = \frac{\sum_{k=1}^{l_s+s-n-l_i} \sum_{j_s=l_s+n-D}^{(j_s+1)} \sum_{j_{ik}=l_{ik}+n-D}^{(j_{ik}+1)} \sum_{j_i=l_i+n-D}^{(j_i+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n_{ik}-k+1)} \\
 & \sum_{(n_{is}=n_{ik}+j_{ik}-j_i-k+1)}^n \sum_{(n_{ik}+j_{ik}-j_i-k+1)}^{(n_{ik}-k+1)} \\
 & \sum_{(j_{ik}-j_i-k+1)}^{n_{is}+j_s-j_{ik}} \sum_{(j_i-k+1)}^{(n_{ik}+j_{ik}-j_i-k+1)} \\
 & \frac{(n_{is}-1)! \cdot (n_{is}-j_s+1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{ik}-1)!}{(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-k-1)!}{(j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-k)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n_{ik}-k+1)}
 \end{aligned}$$

GÜLDÜZYA

GÜLDÜSÜZ

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)! \cdot (j_i - j_{ik} - 1)!} \cdot \\
 & \frac{(j_i - j_s - n - l_k - 1)! \cdot (j_s - 2)!}{(l_{ik} - j_{i_s} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(j_{ik} + l_{ik} - j_{i_s} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}{(D - l_i)!} \\
 & \frac{(D + j_i - n - l_i)! \cdot (n - j_i)!}{\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}
 \end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(n - l_i)!}{(D + j_i - n - l_i)! \cdot (j_i)!} + \\
& \sum_{i=1}^{D+l_s+s-n-l_i} \sum_{j=1}^{(l_s-k+1)} \sum_{k=1}^{(j_s - j_{ik} - j_{sa}^{ik} + 1)} \sum_{l_{ik}=j_s+j_{sa}^{ik}-1}^{(n - j_s + 1)} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{(n - j_s + 1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{i=n+l_k}^n \sum_{(n_{is}=n_{is}+1)}^{(n_{is}+1)} \\
 & \sum_{i=n+l_k-j_s}^{n_{is}+j_s-j_s} \sum_{(n_{ik}+j_{ik}-j_i)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_{is}-1)! \cdot (n_{is}-j_s+1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{ik}-1)!}{(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-k-1)!}{(j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-k)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}
 \end{aligned}$$

GÜLDÜMÜYA

$$\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k - 1)! \cdot (l_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{ik} - s = l_{ik} \wedge$

$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$

$D \geq n < n \wedge l = l_i > 0 \wedge$

$j_{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, j_{sa}^{i_s}\} \wedge$

$s > 3 \wedge l_s = s + l_k \wedge$

$l_{k_z}: z = 1 \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+1)}^{(l_s+s-k)}$$

$$\begin{aligned}
 & \sum_{n_i = n + l_k}^n \sum_{(n_{is} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + l_k - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(n - j_s - n - l_k - 1)!}{(n - j_s - n - l_k - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}^{(l_s - k + 1)} \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_i - k + 1)} \sum_{(j_i = l_s + s - k + 1)} \\
 & \sum_{n_i = n + l_k}^n \sum_{(n_{is} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + l_k - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{j_i=1}^{(n)} \sum_{j_s=1}^{(n)} \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-j_{i+1})} \sum_{j_i=s}^{(n)} \sum_{n_i=n+k}^{(n_{ik}=n+k-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-k)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{i-1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

GÜLDÜMNA

$$\begin{aligned}
& \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+1)}^{(l_s+s-k)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_i+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(\cdot)} \\
& \frac{(n_i+j_{ik}-j_i-j_s)!}{(n_i-n-l_i)! \cdot (n+j_{ik}-j_i-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s-l_k-1)!}{(l_s-l_k+1)! \cdot (j_s-2)!} \\
& \frac{(D-l_i)}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
& \sum_{k=i}^{(\cdot)} \sum_{(j_s=1)}^{(\cdot)} \\
& \sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{(j_i=s)}^{(\cdot)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{(\cdot)} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k} \\
& \frac{(n_i+j_{ik}-j_i-l_k-j_{sa}^{ik})!}{(n_i-n-l_k)! \cdot (n+j_{ik}-j_i-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-n-l_i)! \cdot (n-s)!}
\end{aligned}$$

$$(D \geq n-l_i) \wedge l_s \leq D-n+1 \wedge$$

$$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i}^{DQSD} = \left(\sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=s+1)}^{(n)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_{is}+j_s-j_{ik})} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right)$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
& \frac{(l_s + l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{l_s - k + 1} \sum_{(j_s=2)}^{l_s - k + 1} \\
& \sum_{(j_{ik}=j_i + j_{s_a}^{ik} - s)}^{l_{ik} + s - k - j_{s_a}^{ik} + 1} \sum_{(j_i=l_s + s - k + 1)}^{l_{ik} + s - k - j_{s_a}^{ik} + 1} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i-1} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_i - j_{ik-s}}^{(l_{ik+s} - j_{sa}^{ik} + 1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_{i_s}=n+l_k}^{(n_i - j_{ik})} \sum_{n - j_i + 1}^{n_{ik} + j_{ik} - j_i}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - k - 1)! \cdot (k + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\left(\sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(j_{ik} - j_{sa}^{ik} + 1)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i + j_{sa}^{ik} - s - 1} \sum_{(j_i=s+2)}^{(l_s + s - k)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k - j_s + 1)}^{(n_i - j_s + 1)}$$

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$$\begin{aligned}
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_i)!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_i - l_s)! \cdot (j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} - j_i - l_i)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_s+s-k+1)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{ik} - l_i - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{i-1} \sum_{j_s=2}^{l_s-k+1} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-k+1} \sum_{(j_i=l_{ik}+s-k-j_{sa}^{ik}+2)}^{(l_i-k+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{i-1} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{(j_s)}$$

$$\sum_{j_{ik}=j_{ik}+s-j_{sa}^{ik}+1}^{(j_{ik})}$$

$$\sum_{n=n+l_k}^n \sum_{n_i=n_{ik}+l_k-j_{ik}+1}^{(n_i-j_{ik}+l_k)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - l_k - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{i-1} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{(j_s)}$$

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$$\begin{aligned}
& \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+1)}^{(l_s+s-k)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(\cdot)} \\
& \frac{(n_i+j_{ik}-j_i-j_s)!}{(n_i-n-l_i)! \cdot (n+j_{ik}-j_i-j_{sa}^{ik})!} \cdot \\
& \frac{(l_s+l_k-1)!}{(l_s-l_k+1)! \cdot (j_s-2)!} \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
& \sum_{k=i}^{\cdot} \sum_{(j_s=1)}^{(\cdot)} \\
& \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{(\cdot)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{(\cdot)} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k} \\
& \frac{(n_i+j_{ik}-j_i-l_k-j_{sa}^{ik})!}{(n_i-n-l_k)! \cdot (n+j_{ik}-j_i-j_{sa}^{ik})!} \cdot \\
& \frac{(D-l_i)!}{(D+s-n-l_i)! \cdot (n-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_i}^{DOSD} = \sum_{k=1}^{i-1} \binom{j_{sa}^{ik}+1}{j_s} \binom{l_s+j_{sa}^{ik}}{j_{ik}=j_{sa}^{ik}+1} \binom{n_i-j_s+1}{n_i=n+\mathbb{k}} \binom{n_i-n_{is}+1}{n_{is}=n+\mathbb{k}-j_s+1} \binom{j_i-j_s-j_{ik}}{n_{ik}=n+\mathbb{k}-j_{ik}+1} \binom{n_{ik}+j_{ik}-j_i-\mathbb{k}}{n_s=n-j_i+1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\begin{aligned}
 & \sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s + j_{sa}^{lk} - k + 1}^{l_i + j_{sa}^{lk} - k - s + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{lk})} \\
 & \sum_{n_i=n+lk}^n \sum_{(n_{is}=n_i - k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik}=n+lk-j_{sa}^{lk}+1}^{n_{is} + j_s - j_{ik}} \sum_{(n_s=n-j_i+l_k)}^{n_{is} + j_s - j_{ik} + j_{sa}^{lk} - j_i - lk} \\
 & \frac{(n - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - j_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - lk - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - lk)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{lk} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{lk} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=i}^l \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{lk}}^{l_i + j_{sa}^{lk} - i^{l-s+1}} \sum_{(j_i=j_{ik} + s - j_{sa}^{lk})}^{()}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_i - l_s - j_{sa} - 1)!}{(l_{ik} - j_{ik} - l_s - 1)! \cdot (j_{ik} - l_k)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{l_i-1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}-k)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(j_i=j_{ik}+s-j_{sa}^{ik}-k)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(n_s=n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(j_s=1)}^{(j_s=1)}
 \end{aligned}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-k} \frac{(n_i + j_{ik} - j_i - k - j_{sa}^{ik})!}{(n_i - n - k)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - l_i - 1) \cdot (n - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_i \leq D + s - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \left(\sum_{k=1}^{i^{l-1} (j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{l_s + j_{sa}^{ik} - k} \right)$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_{sa}^{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s) \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_s-k-1)}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-k)!} \cdot \\
 & \frac{(n-1)}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)}{(j_{ik}-l_{ik}-j_{sa}^{ik})! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +
 \end{aligned}$$

$$\sum_{k=i}^l \sum_{(j_s=1)}^{()}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n-j_i+1)}^{n_{ik}+j_{ik}-j_i-k} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!}
 \end{aligned}$$

GÜLDÜZÜMÜ

$$\begin{aligned}
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \left(\sum_{k=1}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{(j_s=2)}^{j_{ik} - j_{sa}^{ik} + 1} \right) \\
& \sum_{l_s=0}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{k=1}^{j_{ik} - j_{sa}^{ik} + 1} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{n} (j_i = j_{ik} + s - j_{sa}^{ik} + 1) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_s+j_{ik}^{k-1}}^{l_{ik}-k+1} \frac{(l_{ik}-k+1)!}{(j_i - j_{ik} - k + 1)!}$$

$$(n_i - j_s + 1)$$

$$\sum_{(n_{ik} = n_s + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$(n_{ik} - j_i - k)$$

$$\sum_{(n_s = n - j_i + 1)}^{(n_{ik} - j_i - k)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

GÜLDÜNYA

$$\begin{aligned}
 & \sum_{k=1}^{i-1} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-i+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-1)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - 1)!} \cdot \\
 & \frac{(n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_i - 1 - j_i - l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_i - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_i - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) - \\
 & \sum_{k=1}^{i-1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()}
 \end{aligned}$$

GÜLDÜMÜŞA

$$\frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{(j_s)} \binom{(\cdot)}{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \binom{(\cdot)}{(j_i=s)}$$

$$\sum_{n_i=n+1}^n \sum_{j_{ik}=n_i-j_{sa}^{ik}-1} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k}$$

$$\frac{(n_i + j_{ik} - j_i - l_k - j_{sa}^{ik})!}{(n_i - n - l_k)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \geq l_s \wedge l_i - j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s + j_{sa}^{ik} - 1}^{l_i + j_{sa}^{ik} - k - s + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n+l_k - j_s}^{n_{is} + j_s - j_{ik}} \sum_{(n_s=n - j_i + j_{ik})}^{n_{is} + j_s - j_{ik} + j_{sa}^{ik} - j_i - l_k}$$

$$\frac{(n - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - j_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - j_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{()} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_i + j_{sa}^{ik} - i^{l-s} + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik})}^{()}$$

GÜLDÜZYAZ

$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - j_{sa} + 1)! \cdot (j_{ik} - j_{sa} - l_k)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
& \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{i-1} \sum_{(j_s=1)}^{()}
\end{aligned}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-k} \frac{(n_i + j_{ik} - j_i - k - j_{sa}^{ik})!}{(n_i - n - k)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - k - l_i - 1) \cdot (n - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_i \leq D + s - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \left(\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2, \dots, j_{ik}^{ik}, j_i^i)} \dots \right)$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{()} \sum_{i^l (j_s=1)}$$

GÜLDÜNYA

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i}^{n_{ik}+j_{ik}-j_i-\mathbb{k}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{ik} - 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \left(\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) + \\
 & \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \right) \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik}+1)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot
 \end{aligned}$$

GÜLDÜZYAZ

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{j_s=1}^{()} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}+1}^{(l_i-l+1)} \sum_{n_i=n+l_k}^{l_{ik}-l+1} \sum_{n_{ik}=n+l_k-j_{ik}+1}^{(i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

GÜLDÜNKYA

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$$\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s + j_{sa}^{ik} - 1} \sum_{(j_i=j_{ik} + s - j_i)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_i} \sum_{(n_s=n_{ik}+j_{ik}-j_i)}$$

$$\frac{(n_i - j_i - j_{sa}^{ik})!}{(n_i - n - l_k)! \cdot (n_i - j_{sa}^{ik})!}$$

$$\frac{(D - k - 1)!}{(n_i - j_s - l_k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{(i)} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}$$

$$\frac{(n_i + j_{ik} - j_i - l_k - j_{sa}^{ik})!}{(n_i - n - l_k)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 & \sum_{i=2}^{D+l_s} \sum_{j_i=l_i}^{n-l_i} (j_{ik} - j_{sa}^{ik} + 1) \\
 & \sum_{i=2}^{(l_s+s-k)} \sum_{j_i=j_i+j_{sa}^s-s}^{(j_i=l_i+n-D)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}
 \end{aligned}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i+l_s-k+1)}^{(l_i-k+1)} \\
 & \sum_{i=n+l_k}^n \sum_{(n_{is}=n_{ik}+1)}^{(n_{is}+1)} \\
 & \sum_{i=n+l_k}^{n_{is}+j_s-1} \sum_{(n_{ik}+j_{ik}-j_i)}^{(n_{ik}+j_{ik}-j_i-1)} \\
 & \frac{(n_{is}-1)! \cdot (n_{is}-j_s+1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{ik}-1)!}{(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-k-1)!}{(j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-k)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)}
 \end{aligned}$$

GÜLDÜMÜYA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)!} \cdot \\
 & \frac{(n - j_s - n - l_k - 1)!}{(n - j_s - n - l_k - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_i + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{()} \sum_{l_i}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l_i+1)} \sum_{(j_i=l_i+n-D)}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}
 \end{aligned}$$

GÜLDÜSÜZ

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_i+j_s}^{(j_{ik}=j_i+j_s)} \sum_{j_i=l_i+n-D}^{(j_i=l_i+n-D)} \sum_{n_{ik}=n-l_s+k}^{(n_{ik}=n-l_s+k)} \sum_{n_{is}=n+l_k-j_s+1}^{(n_{is}=n+l_k-j_s+1)} \sum_{n_{ik}=n-l_s+k}^{(n_{ik}=n-l_s+k)} \sum_{j_s=j_{ik}}^{(j_s=j_{ik})} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k}^{(n_s=n_{ik}+j_{ik}-j_i-l_k)} \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge 1 \leq j_i < j_{ik} - j_{sa}^{ik} \wedge j_{ik} = j_i + j_s - s \wedge l_s + s - j_{sa}^{ik} \leq j_i \leq n \wedge l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}) \vee (D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_{ik}+s} \sum_{(j_s=2)}^{l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_i+n-D)}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}} \sum_{s=2}^{(l_s-k+1)} \\
& \sum_{j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-1)} \sum_{=l_s+s-k+1} \\
& \sum_{n_i}^{n_i} \sum_{(n_{is}=n+l_k-j_s+1)}^{(l_i-k+1)} \\
& \sum_{n_i+l_k-j_{ik}+1}^{+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \sum_{(n_s=n-j_i+1)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) +
\end{aligned}$$

GÜLDENWASSER

$$\begin{aligned}
 & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 & \quad \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_i+n)}^{(l_s+s-k)} \\
 & \quad \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_i-j_s+1)}^{(n_i-j_s+1)} \\
 & \quad \sum_{n_{ik}=n+l_k-j_i+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_i-j_{ik})} \\
 & \quad \frac{(n_{is}-n_{ik}-1)!}{(j_s-2)! \cdot (n_i-j_i+1)!} \cdot \\
 & \quad \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 & \quad \frac{(n_{ik}-n_{is}-k-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-k)!} \cdot \\
 & \quad \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \quad \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \quad \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \quad \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \quad \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \quad \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \quad \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_s+s-k+1)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i - 1)!}{(n_s - j_i - n - l_i - j_i)!} \cdot \\
 & \frac{(j_i - j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(l_{ik} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(j_i + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}{(j_i + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=l_{ik}+s-k-j_{sa}^{ik}+2)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - l_{ik} - k + 1)! \cdot (l_s - j_{sa} - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^k - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_{ik}+s-n-l_i-j_{sa}^{ik}+2}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}
 \end{aligned}$$

GUIDANCE

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{j_s=1}^{()} \sum_{l_{ik}=l_i+1}^{()} \sum_{n_i=n+l_k}^{()} \sum_{n_{ik}=n+l_k-j_{ik}+1}^{()} \sum_{n_s=n-j_i+1}^{()} \frac{(l_i - l_{i+1})}{(j_i - j_{ik} + 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} + j_{ik} - j_i - l_k)}{(n_{ik} - n_s - l_k - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

GÜLDÜNYA

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_i-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_s=n_{ik}+j_{ik}-j_i)}^{(\quad)} \frac{(n_i - n_{ik} - j_s - j_{sa}^{ik})!}{(n_i - n_{ik} - j_s - j_{sa}^{ik} - k - 1)!} \cdot \frac{(n_i - j_s - j_{sa}^{ik} - 1)!}{(n_i - j_s - j_{sa}^{ik} + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge j_{sa}^{ik} - j_i = l_{ik} \wedge$$

$$D + s - j_{sa}^{ik} < l_i \leq D + j_{sa}^{ik} + s - n - 1 \wedge$$

$$D \geq n < n \wedge l_s \leq D - n \wedge$$

$$j_{sa}^{ik} < j_{sa}^i \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, \dots, j_{sa}^i, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} &= \sum_{k=1}^{D+l_s+s-n-l_i(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)} \\
 &\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n-j_s+1)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{is}+j_s-j_{ik}}^{n_{is}+j_s-j_{ik}+j_{sa}^{ik}-j_i-k} \\
 &\sum_{n_{ik}=n+k-j_s+1}^{n_{ik}-j_s+1} \sum_{(n_s=n-j_i+1)}^{(n_s-n_{ik}-j_s+1)} \\
 &\frac{(n_s-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
 &\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 &\frac{(n_{ik}-n_s-k-1)!}{(j_i-j_s-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-k)!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=1}^{D+l_s+s-n-l_i(l_s-k+1)} \sum_{(j_s=2)} \\
 &\sum_{j_{ik}=l_s+j_{sa}^{ik}-k-s+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n-j_s+1)}
 \end{aligned}$$

GÜLDÜZYA

$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \frac{(n_{i_k} - n_s - l_k - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_k)!} \cdot \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)! \cdot (j_i - j_{i_k} - 1)!} \cdot \frac{(j_s - n - l_k - 1)!}{(j_s - n - l_k - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!}{(j_{i_k} + l_{i_k} - j_{i_k} - j_{s_a}^{i_k})! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \sum_{j_{i_k}=l_i+n+j_{s_a}^{i_k}-D-s}^{l_i+j_{s_a}^{i_k}-k-s+1} \sum_{(j_i=j_{i_k}+s-j_{s_a}^{i_k})}^{()}$$

$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot$$

GÜLDEN

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_s + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=i}^{(\cdot)} \sum_{l=(j_s=1)}^{(\cdot)} \\
& \sum_{j_{sa}^{ik} = i + n + j_{sa}^{ik} - D - s}^{l_i + j_{sa}^{ik} - i - s + 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(\cdot)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{ik} = n + \mathbb{k} - j_{ik} + 1)}^{(n_i - j_{ik} + 1)} \sum_{n_s = n - j_i + 1}^{n_{ik} + j_{ik} - j_i - \mathbb{k}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{sa}^{ik}} \sum_{(n_{is}=n_{ik}+j_{ik}-j_i)}^{(\quad)}$$

$$\frac{(n_i - n_{ik} - j_i - j_{sa}^{ik})!}{(n_i - n_{ik})! \cdot (n_{ik} - j_i - j_{sa}^{ik})!}$$

$$\frac{(n_{ik} - j_s - j_{sa}^{ik} - k - 1)!}{(n_{ik} - j_s - j_{sa}^{ik} + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{ik} + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}) \vee$$

$$(D > n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_i - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \left(\sum_{k=2}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{j=2}^{l_s-j_{sa}^{ik}+1} \sum_{n_i=n_{is}+j_s-1}^{n_i-n_{is}-1} \sum_{n_{ik}=n_{is}+j_s-1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}} \sum_{n_s=n-j_i+1}^{n_s+n+\mathbb{k}-j_s+1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) +$$

GÜLDÜNYA

$$\begin{aligned}
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_i^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k}^{n_i+j_s-j_{ik}} \sum_{(n_{is}=n-k-j_s+1)}^{(n_{ik}+j_i-j_i^{ik})} \\
 & \sum_{(j_s=2)}^{(n_i-n_{ik}-1)!} \cdot \frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{is}-k-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-k)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \left(\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \right) + \\
 & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 & \left. \sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \right)
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i - j_i)!}{(n_s - j_i - n - l_i - j_i - j_i)!} \cdot \\
 & \frac{(j_i - j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(j_i - j_s - n - l_i - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{i_s}^{ik} + 1)!}{(j_i + l_{ik} - j_{i_s}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{i_s}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{i_s}^{ik} - l_{ik} - s)!}{(j_i + l_i - l_{ik})! \cdot (j_i + j_{i_s}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{i_s}^{ik}+1} \sum_{(j_s=2)}^{(j_{ik}-j_{i_s}^{ik}+1)} \\
 & \sum_{j_{ik}=l_i+n+j_{i_s}^{ik}-D-s}^{l_s+j_{i_s}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{i_s}^{ik}+1)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

GÜLDÜŞMAYA

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)!} \cdot (n - j_i)! \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_{sa} - k + 1)!} \cdot (j_{sa} - j_s - 2)! \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_{sa} - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{l_{ik} + s - n - l_i - j_{sa}^{ik} + 1} \sum_{(j_s=2)}^{(l_s - k + 1)} \\
 & \sum_{j_{ik}=l_s + j_{sa}^{ik} - k + 1}^{l_{ik} - k + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik} + 1)}^{(l_i - k + 1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is} + j_s - j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - l_{ik} - s)!} \cdot \\
& \frac{(D - j_i - 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=D}^{l-1} \sum_{j_s=n-l_i-j_{sa}^{ik}}^{(l_s-k+1)} \frac{(l_i-k+1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \sum_{j_{ik}=l_{ik}+n-D}^{k+1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \frac{(n_i - j_s + 1)!}{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}} \cdot \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{()} \sum_{j_s=1}^{()}$$

$$\sum_{j_{i+1}=l_i+1}^{()} \sum_{j_i=l_i+n-D}^{()}$$

$$\sum_{n_i=n+1}^n \sum_{n_{ik}=n+k}^{(j_{ik}+1)} \sum_{n_s=n-j_i+1}^{(j_i-k)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

GÜLDÜNKAYA

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(\quad)}$$

$$\frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k - 1)! \cdot (k - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i - l_k)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = 0 > 0 \wedge$$

$$j_{ik} < j_{sa}^l - j_{sa}^s \leq j_{sa}^s - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s > 3, l = s + l_k \wedge$$

$$l_k: z = 1 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{i_s} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)! \cdot (n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_i - j_s - n - 1)! \cdot (j_s - 2)!}{(n_i - j_s - n - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_i + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot
 \end{aligned}$$

GÜLDÜSÜZ

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
& \frac{(n - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=D+l_s}^{i^{l-1}} \sum_{j_s=2}^{n-l_i+1} \sum_{k-s+1}^{(j_i)} \\
& \sum_{i+n+j_{sa}^{ik}-D-s}^{l_i+j_s} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{()} \binom{()}{j_s=1}$$

$$l_i + j_{sa}^{ik} - i^{l-s+1}$$

$$\sum_{j_{ik}=l_i+n}^{()} \binom{()}{j_{sa}^{ik}-D-s}$$

$$\sum_{n_i=n+l_k}^n \binom{(n_i-j_{ik})}{()} \sum_{n_{ik}=n+l_k-j_{ik}}^{n_{ik}+j_{ik}-j_i} \binom{()}{()}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - k - 1)! \cdot (n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - k - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDENWA

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_z}} \frac{(n_i + j_{ik} - j_i - I - j_{sa}^{ik})!}{(n_i - n - I)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - l_s + k - 1)!} \cdot \frac{(D - l_s)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$(D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik})) \wedge$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, j_{sa}^s, \dots, \mathbb{k}_z, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k}_z \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_i+n-D-s)} \right. \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+l_k)}^{(n_i+j_s-j_{ik}+j_i-l_k)} \\
 & \frac{(n_s - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - j_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - k - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \\
 & \frac{(n_s - \dots)!}{(n_s + j_i - \dots)! \cdot (n - j_i)!} \\
 & \frac{(l_s - \dots - 1)!}{\dots + 1) \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
 & \left(\frac{(D - l_i)!}{(D + \dots - n - l_i)! \cdot (n - j_i)!} \right) + \\
 & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_i+n-D-s)} \right. \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜMÜŞKA

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{sa}^{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(n - l_i - j_{sa}^{ik} - 1)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_{ik} - n - l_i - j_{sa}^{ik} + 1} \sum_{(j_s=2)}^{D-s} \\
 & \sum_{j_i=l_{ik}+s-k-j_{sa}^{ik}+2}^{l_{ik}-1} \sum_{(j_i=l_{ik}+s-k-j_{sa}^{ik}+2)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \cdot \\
 & \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜSÜZ

A

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \binom{l_{ik}+k-1}{k-1} \binom{l_i+n-j_{ik}-s+1}{k}$$

$$\sum_{l=0}^{l_{ik}-k} \binom{l_i-l-1}{l} \binom{l_i+l_{ik}-j_{ik}+s-j_{sa}^{ik}+1}{l}$$

$$\sum_{l_k=0}^n \binom{l_{ik}-k-l_k}{l_k} \binom{l_i+l_{ik}-j_{ik}+s-j_{sa}^{ik}+1}{l_k}$$

$$\sum_{n_{is}=n+l_k-j_s+1}^{n+l_k-j_s+1} \binom{n+l_k-j_s+1}{n_{is}} \binom{l_i+l_{ik}-j_{ik}+s-j_{sa}^{ik}+1}{n_{is}}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_{ik}+s-n-l_i-j_{sa}^{ik}+2}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(l_i-k+1)}^{(l_i-k+1)}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}^{(n_{is}+1)}$$

$$\sum_{n+l_k-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-n)}^{(n_{ik}+j_{ik}-j_i-n)}$$

$$\frac{(n - n_{is} - 1)!}{(j_s - 2)! \cdot (n - n_{is} - j_s + 1)!}$$

$$\frac{(n - n_{ik} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{()} \sum_{(j_s=1)}^{()}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i+1} \sum_{(j_i=l_i+n-D)}^{(l_i-i+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{ik} - 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_{ik} + j_{sa}^{ik} - l_{ik} - s)!}{(l_{ik} + l_i - j_i - l_i)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \left(\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) \cdot \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜZ

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\ & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \end{aligned}$$

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{n-l_i-k+1} \frac{(n-l_i-k+1)!}{(j_s - k - j_{sa}^{ik} + 1)!} \cdot \\
 & \sum_{j_{ik}=j_{sa}^{ik}-s}^{j_{ik}=j_{sa}^{ik}-s} (j_i = l_s - k + 1) \\
 & \sum_{n_i=n+l_k}^{n_i=n+l_k} \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_s+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
 \end{aligned}$$

GÜLDÜNYA

$$\sum_{k=D+l_s+s-n-l_i+1}^{l-1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik}+1)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+l_k)}^{n_{is}+j_s-j_{ik}+j_{ik}-j_i-l_k}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_s-l_k-1)!}{(j_i-j_s-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_k)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

$$\sum_{k=i}^{()} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-i-l-j_{sa}^{ik}+1)}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(l_{ik} - j_{ik} - j_{sa} + 1)! \cdot (j_{ik} - j_{sa} - l_k)!} \cdot \\
 & \frac{(D - l_i - 1)!}{(D - j_i - n - l_i - 1)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}}^{(j_s-j_{ik}+1)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(j_s-j_{ik}+1)} \\
 & \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=1}^{s-n-(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s=j_{sa}^{ik}-1)} \\
 & \sum_{i=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(j_i=j_{sa}^{ik}-1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$(n_i - j_s + 1)$$

$$\sum_{(n_i+l_k)}^{(n_i+l_k-j_s+1)}$$

$$\sum_{(n_i-j_{ik})}^{(n_i-j_{ik}-j_i-l_k)}$$

$$\sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$(n_{is} - n_{ik} - 1)!$$

$$(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!$$

$$(n_{ik} - n_s - l_k - 1)!$$

$$(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!$$

$$(n_s - 1)!$$

$$(n_s + j_i - n - 1)! \cdot (n - j_i)!$$

$$(l_s - k - 1)!$$

$$(l_s - j_s - k + 1)! \cdot (j_s - 2)!$$

$$(l_{ik} - l_s - j_{sa}^{ik} + 1)!$$

$$(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!$$

$$(D - l_i)!$$

$$(D + j_i - n - l_i)! \cdot (n - j_i)! +$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

GÜLDÜZYA

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)}$$

$$\frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-n_{is}+n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_s-k)}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-k)!}$$

$$\frac{(n-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

$$\sum_{k=i}^l \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n-j_i+1)}^{n_{ik}+j_{ik}-j_i-k}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!}$$

GÜLDENWA

$$\begin{aligned}
& \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{D+l_s+s} \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{(j_{ik}-j_{sa}^{ik})-k} \sum_{j_{ik}=j_{ik}+s-j_{sa}^{ik}}^{(j_{ik}-j_{sa}^{ik})-k} \sum_{n_i=n+l_k}^{n_i} \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}}^{(n_s=n_{ik}+j_{ik}-j_i-k)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k)}^{(n_s=n_{ik}+j_{ik}-j_i-k)} \\
& \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D - n < l_s \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$fzS_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=0}^{D+l_s+s-n-l_i} \sum_{(j_s-2)}^{(n-D-j_{sa}^{ik})} \sum_{i_{ik}=l_{ik}+n-k+1}^{i_{ik}=j_{ik}+s-j_{sa}^{ik}} \sum_{n_i=l_i-k}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}=n+\mathbb{k}-j_s+1} \sum_{n_{ik}=n_{is}+j_s-j_{ik}}^{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}^{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

GÜLDÜMNYA

$$\begin{aligned}
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \sum_{n_{ik}=n+l_k-j_s+1}^{(n_{ik}+j_{ik}-j_i-l_k)} \sum_{(n_s=n-j_i+l_k)}^{(n_s-n-j_i+l_k)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{ik} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - l_k - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
 \end{aligned}$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - j_i - n - \mathbb{k} - 1)!}{(n_s - j_i - n - \mathbb{k} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=i}^{\binom{D}{i}} \sum_{(j_s=1)}^{\binom{D}{i}} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{\binom{D}{i}} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot
 \end{aligned}$$

GÜLDÜSÜMÜR

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{D+l_s+s-n-l_i} \binom{l_s-k+1}{k} \binom{l_i-k+1}{k} \sum_{j_{sa}^{ik}=l_{ik}+n-j_{sa}^{ik}+1}^{l_i-k+1} \binom{l_i-k+1}{j_{sa}^{ik}} \sum_{j_{ik}=j_s+j_{sa}^{ik}-l_i}^{l_i-k+1} \binom{l_i-k+1}{j_{ik}} \sum_{n_{ik}=n-l_i+k}^{n_{ik}+k} \binom{n_{ik}+k}{n_{ik}} \sum_{n_s=n_{ik}+j_{ik}-j_i-k}^{n_s} \binom{n_s}{n_{ik}+j_{ik}-j_i-k} \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$\geq n < n \wedge l_s > D - l_i + 1 \wedge$
 $2 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge$
 $j_{ik} = j_i + j_{sa}^{ik} - s \wedge$
 $l_s + s - j_{sa}^{ik} \leq j_i \leq n \wedge$
 $l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$
 $D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$
 $j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$
 $s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$fz_{S \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-k)} \sum_{(j_i=l_s+n-D)}^{(l_s+k)} \sum_{(n_i=j_s+l_s-j_{ik}+1)}^{(n_i+l_s-j_{ik}+1)} \sum_{(n_{ik}=n+l_s-j_{ik}+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \frac{(n_s+j_s-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-j_i-\mathbb{k})!}{(j_s-2)! \cdot (n_s-n_{ik}-1)! \cdot (n_{ik}-n_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \frac{(n_s-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \frac{(n_{ik}-n_s-\mathbb{k}-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-\mathbb{k})!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-k+1)} \sum_{(j_i=l_s+s-k+1)}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - l_k - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i)!}{(n_s - j_i - n - l_i - j_i - k - 1)!} \cdot \\
 & \frac{(n - j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(l_{i_k} - j_{i_k} - j_{s_a} + 1)!} \cdot \\
 & \frac{(j_{i_k} + l_{i_k} - j_{i_k} - j_s)! \cdot (j_{i_k} - j_s - j_{s_a} + 1)!}{(D - l_i)!} + \\
 & \frac{(D + j_i - n - l_i)! \cdot (n - j_i)!}{\sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{i_k}=j_i+l_{i_k}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!}
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - l_i - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - j_i + 1)!} \cdot \frac{(D - l_i)!}{(n - l_i - j_i)! \cdot (n - j_i)!} \cdot \sum_{k=0}^{l_s + s - n - l_i} \sum_{j_s = j_{ik} - j_{sa}^{ik} + 1}^{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \sum_{j_{ik} = j_i + l_{ik} - l_i}^{(l_s + s - k)} \sum_{(j_i = l_i + n - D)}^{(l_s + s - k)} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik}}^{()} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k)}^{()} \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{SDOSD} = \sum_{k=1}^{l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_i+1)}$$

$$= \sum_{(j_s=l_s+n-D)}^{(j_i+1)} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(j_i+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-k-s+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{(n+l_k)}^n \sum_{(n_{is}=n_{ik}+1)}^{(n_{is}+1)}$$

$$\sum_{(n+l_k-j_{ik})}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i)}^{(n_{ik}+j_{ik}-j_i)}$$

$$\frac{(n_{ik} - n_s - 1)!}{(n_{ik} - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - n_{ik} - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - l_k - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i)!}{(n_s - j_i - n - l_i - k - 1)!} \cdot \\
 & \frac{(n_i - j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(n_i + j_{i_k} - j_i - n - l_i - j_s)! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{i_k}-j_{s_a}^{i_k}+1)}^{()} \\
 & \sum_{j_{i_k}=l_i+n+j_{s_a}^{i_k}-D-s}^{l_s+j_{s_a}^{i_k}-k} \sum_{(j_i=j_{i_k}+l_i-l_{i_k})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n_{i_k}+j_{i_k}-j_i-l_k)}^{()} \\
 & \frac{(n_i + j_{i_k} - j_i - l - j_{s_a}^{i_k})!}{(n_i - n - l)! \cdot (n + j_{i_k} - j_i - j_{s_a}^{i_k})!}
 \end{aligned}$$

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$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} &= \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_i+n-D-s)} \\ &\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-k-s+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\ &\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \end{aligned}$$

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_s+s-n} \sum_{j_s=l_i+n-D-s}^{(l_s-k-1)} \frac{(l_s-k-1)!}{(j_s+l_i+n-D-s-k)!} \cdot \\
 & \sum_{j_{ik}=j_{sa}^{ik}-1}^{(i_k-k-s+1)} \sum_{(j_i=j_{ik}-l_i-l_{ik})}^{()} \frac{()}{(j_{ik}+j_{sa}^{ik}-1)!} \cdot \\
 & \sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \cdot \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{s+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
 \end{aligned}$$

GÜLDÜM YA

GÜLDENWASSER

$$\begin{aligned}
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k}^{n_i+j_s-j_{ik}} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - j_s - l_k - 1)!}{(j_i - \dots - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}} \frac{(n_i + j_{ik} - j_i - I - j_{sa}^{ik})!}{(n_i - n - I)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik}$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k}: z = 1 \Rightarrow$$

$$f_Z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{\binom{()}{j_s=l_s+n-D}} \sum_{\binom{()}{j_{ik}=j_i+l_{ik}-l_i}} \sum_{\binom{()}{j_i=l_{ik}+n+s-D-j_{sa}^{ik}}}$$

$$\sum_{\binom{()}{j_{ik}=j_i+l_{ik}-l_i}} \sum_{\binom{()}{j_i=l_{ik}+n+s-D-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{is}=n+\mathbb{k}-j_s+1}}^{\binom{()}{n_i-j_s+1}}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n-j_i+1}}^{\binom{()}{n_{ik}+j_{ik}-j_i-\mathbb{k}}}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_{sa} - k + 1)! \cdot (j_{sa} - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{D+l_s+s-l_i} \sum_{j_s=l_s+n-D}^{l_s-k+1} \\
& \sum_{j_{ik}=j_i+l_{ik}-l_i}^{l_{ik}+s-k-j_{sa}^{ik}+1} \sum_{j_i=l_s+s-k+1}^{(n_i-j_s+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\begin{aligned}
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=D+l_s+s_i-l_i+1}^{D-n+1} \sum_{j_s=j_s+l_i+n-D}^{l_s-k+1} \\
 & \sum_{j_i+l_{ik}-l_i}^{l_{ik}+s_i-1} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+n+s-D}^{l_{ik}+s_i-1} \\
 & \sum_{n_{is}=n+l_k}^{n_{is}-j_s+1} \sum_{n_{ik}+j_{ik}-j_i-l_k}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \sum_{n_{is}+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-k)} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_i}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i}^{()} \frac{(j_i - j_{sa}^{ik})!}{(n_i - n_{is})! \cdot (n_{is} - j_s - j_{sa}^{ik})!} \cdot \frac{(j_s - k - 1)!}{(j_s - j_s + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge j_{sa}^{ik} - j_i = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_i - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^1, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$3 \wedge j_{sa}^{ik} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-k} \binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-l_k-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_k)!} \cdot \frac{(n-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - k + 1)! \cdot (l_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_s)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D}^{D-n+1} \sum_{j_s=l_s+n-D}^{l_s-k+1} \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}
 \end{aligned}$$

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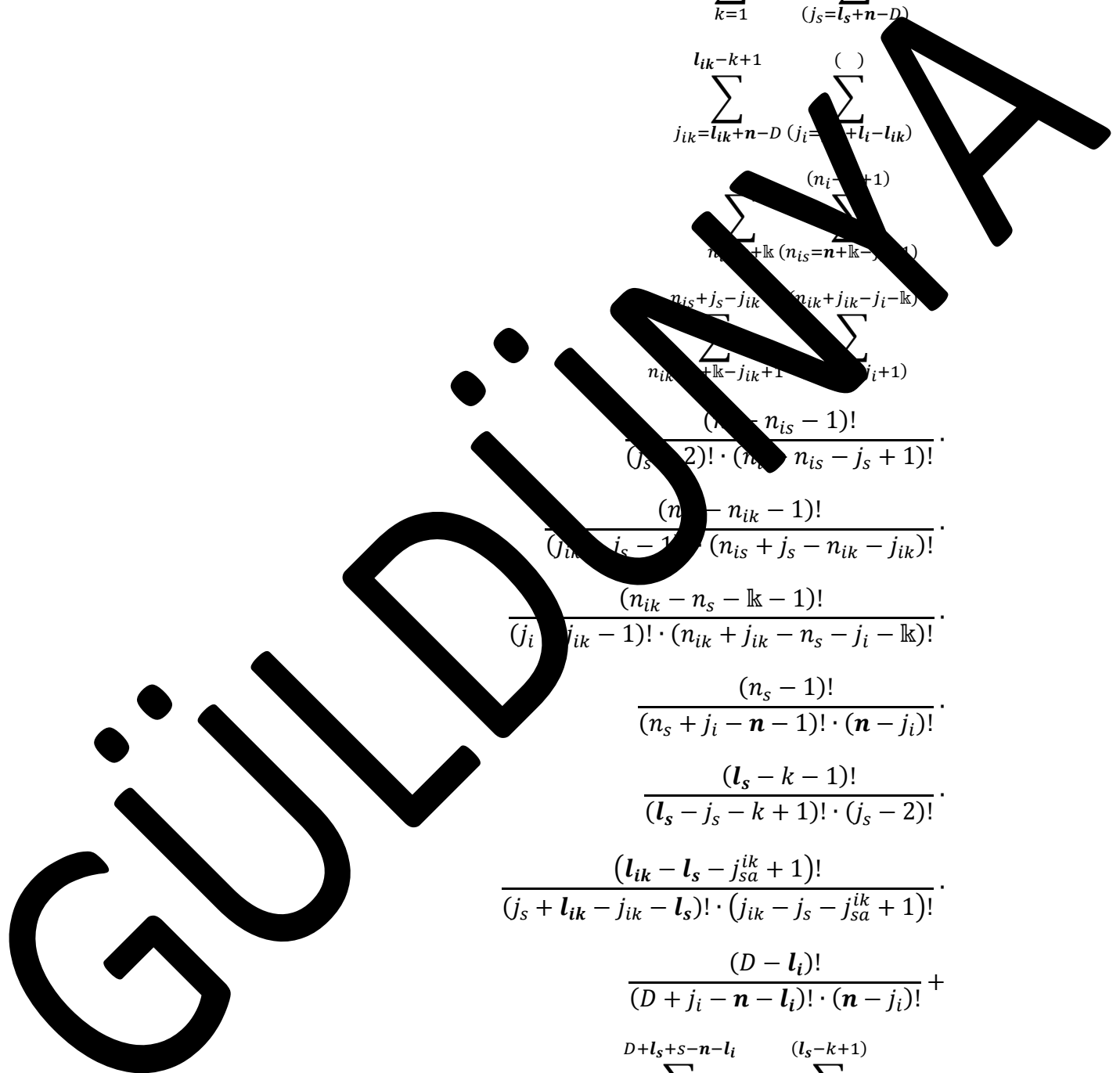
$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \sum_{k=1}^{D+l_s+s-n-l_i} \binom{D+l_s+s-n-l_i}{k} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{j_{ik}-k} \sum_{j_{ik}=l_{ik}+n-j_i-j_{sa}^{ik}}^{j_{ik}-k} \sum_{j_i=j_{ik}+l_i-l_{ik}}^{j_{ik}-k} \sum_{n_{ik}=n-j_s-j_{ik}}^{j_{ik}-k} \binom{n_{ik}+l_k}{n_{ik}} \binom{n_{ik}+l_k}{n_{ik}+l_k-j_s+1} \binom{n_i+j_{ik}-j_i-l-j_{sa}^{ik}}{(n_i-n-l)! \cdot (n+j_{ik}-j_i-j_{sa}^{ik})!} \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\geq n < n \wedge l_s > D - l_i + 1 \wedge 2 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge j_{ik} = j_i + j_{sa}^{ik} - s \wedge l_i + s - l_s \leq j_i \leq n \wedge l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge D \geq n < n \wedge l = k > 0 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge$$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$fz \overset{DOSD}{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \frac{(n_{is}+j_s-j_{ik})!}{(n_{ik}+j_{ik}-j_i-\mathbb{k})!} \frac{(n_{ik}+j_{ik}-j_i-\mathbb{k})!}{(n_{is}-n_{ik}-1)!} \frac{(n_{is}-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \frac{(n_{is}-n_{ik}-1)!}{(n_{is}+j_s-n_{ik}-j_{ik})!} \frac{(n_{ik}-n_s-\mathbb{k}-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-\mathbb{k})!} \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$



$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{iS}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{iS}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{iS} - 1)!}{(j_s - 2)! \cdot (n_i - n_{iS} - j_s + 1)!} \cdot \\
 & \frac{(n_{iS} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{iS} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i)!}{(n_s - j_i - n - l_i - j_i - k - 1)!} \cdot \\
 & \frac{(n - j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(l_{ik} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(n + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}{(D - l_i)!} + \\
 & \frac{(D + j_i - n - l_i)! \cdot (n - j_i)!}{\sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{iS}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{iS}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{iS} - 1)!}{(j_s - 2)! \cdot (n_i - n_{iS} - j_s + 1)!}
 \end{aligned}$$

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$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(n - l_i - 1)! \cdot (n - j_i)!} \sum_{k=1}^{D+l_s-n-l_i} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n-l_{ik}+n-D-j_{sa}^{ik}+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k})}^{(n_i-j_s+1)} \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{sa}^s=1}^{l-1} \sum_{j_{sa}^{ik}=1}^{j_{sa}^i-j_{sa}^s} \sum_{j_i=2}^{(l_s+s-k)} \\ & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{j_i+l_{ik}-l_i} \sum_{j_i=s+1}^{j_i+s+1} \\ & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-k+1)} \sum_{(j_i+s-k+1)}$$

$$\sum_{n+lk}^{(n_i-k+1)}$$

$$\sum_{n+lk}^{(n_{is}-n_i-k+1)}$$

$$\sum_{n+lk-j_{ik}}^{(n_{ik}+j_{ik}-j_i-k+1)}$$

$$\sum_{n+lk-j_{ik}}^{(n_{ik}-j_i-k+1)}$$

$$\frac{(n_{is} - 1)!}{(n_{is} - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - 1)!}{(n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - lk - 1)!}{(j_i + j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - lk)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{()} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-i^{l+1})} \sum_{(j_i=s)}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa} - l_k)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{l-1} \sum_{(j_s=j_{ik}-j_{sa}+1)}^{(j_s=j_{ik}-j_{sa}+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=s+1)}^{(l_s+s-k)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(n_i-j_s+1)} \\
 & \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{l-1} \sum_{(j_s=1)}^{(j_s=1)}
 \end{aligned}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}} \frac{(n_i + j_{ik} - j_i - \mathbb{k} - j_{sa}^{ik})!}{(n_i - n - \mathbb{k})! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(D - l_i)}{(D + s - \mathbb{k} - l_i - 1)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_s^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{ik}, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^{ik}\} \wedge$$

$$s > 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{i^{l-1} (j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s + j_{sa}^{ik} - k} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \\
 & \frac{(n_s - \dots)!}{(n_s + j_i - \dots)! \cdot (n - j_i)!} \\
 & \frac{(l_s - \dots - 1)!}{\dots + 1) \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + \dots - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k-s+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\dots)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜMÜŞA

$$\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i - 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=0}^{l_i + j_{sa}^{ik} - s + 1} \sum_{j_s=1}^{(j_s)} \sum_{k=j_{sa}^{ik}}^{n - j_{ik} + 1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s)}$$

GÜLDÜMNA

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i+j_{ik}-j_i-l_k-j_{sa}^{ik})!}{(n_i-n-l)! \cdot (n+j_{ik}-j_i-l_k-j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s-l_k-1)!}{(l_s-l_k+1) \cdot (j_s-2)!} \\
 & \frac{(D-l_i)!}{(D+j_i-l_i)! \cdot (n-j_i)!} \\
 & \sum_{k=l}^{()} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j_i=s)}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i+j_{ik}-j_i-l_k-j_{sa}^{ik})!}{(n_i-n-l_k)! \cdot (n+j_{ik}-j_i-l_k-j_{sa}^{ik})!} \cdot \\
 & \frac{(D-l_i)!}{(D+s-n-l_i)! \cdot (n-s)!}
 \end{aligned}$$

$$D \geq n < l_s \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

GÜLDÜMVA

$$\begin{aligned}
 & f_{z \Rightarrow i}^{DOSD} \sum_{k=1}^{i-l} \sum_{j_i}^{i-k+1} \\
 & \sum_{j_s+j_{sa}^{ik}-1}^{i+j_{sa}^{ik}-k-1} \sum_{j_i-l_{ik}}^{i-l_{ik}} \\
 & \sum_{n_i=n+\mathbb{k}}^{n_i-j_s+1} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_i-j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=1}^{i^l} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{l_i+j_{sa}^{ik}-i^{l-s+1}} \sum_{(j_i=j_{ik}+l_i-}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-1)!} \cdot \\
 & \frac{(n_s-n_{ik}-1)!}{(j_i-j_{ik}-1)! \cdot (n_s-n_{ik}-j_i-l_k)!} \cdot \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_i-l_s-j_{sa}^{ik}+1)!}{(l_{ik}-j_i-l_s+1)! \cdot (j_{ik}-j_{sa}^{ik})!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
 & \sum_{k=1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i+j_{ik}-j_i-l-j_{sa}^{ik})!}{(n_i-n-l)! \cdot (n+j_{ik}-j_i-j_{sa}^{ik})!}
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{(j_s-1)} \sum_{l_i=1}^{(j_s-k)} \sum_{n_i=n+l_i}^n \sum_{j_{ik}=1}^{(n_i+j_{sa}-j_i-l_i-k)} \frac{(n_i+j_{sa}-j_i-l_i-k)!}{(n_i-l_i-k)! \cdot (n_i+j_{ik}-j_i-j_{sa})!} \cdot \frac{(D-l_i)!}{(D+l_s-n-l_i)! \cdot (n-s)!}$$

- $D \geq n < n \wedge l_s \leq D - n + 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{ik} = j_i + j_{sa}^{ik} - s$
- $j_i + s - j_{sa}^{ik} \leq j_i \leq n$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \leq l_i + j_{sa}^{ik} - s \leq j_{ik} \wedge$
- $D + s - n < l_i \leq D + j_i + s - n - 1 \wedge$
- $D \geq n < n \wedge l_i = k > 1 \wedge$
- $j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$
- $s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge$
- $s > j_{sa}^s = s + k \wedge$
- $k_z: z = 1 \Rightarrow$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-k)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_s-l_k)}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_k)!} \cdot \\
 & \frac{(n_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_s+s-k+1)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - l_{ik} - k + 1)! \cdot (l_s - l_{ik} - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_{ik})!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{i=0}^{l_i} \sum_{j_s=2}^{(l_s-k+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-k+1)} \sum_{j_i=l_i+n-D}^{(l_i-k+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{()} \sum_{(j_s=1)}$$

$$\sum_{(l_i=1)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n}^n \sum_{(n_{ik}=n+l_{ik}-j_i+1)} \sum_{n_s=n-j_i+1}^{n_i-j_{ik}+1} \sum_{n_s=n-j_i+1}^{n_i-j_i-k}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_s - k - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-k)}$$

$$\sum_{n_i=n+l_{ik}}^n \sum_{(n_{is}=n+l_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜZMAYA

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}} \frac{(n_i + j_{ik} - j_i - I - j_{sa}^{ik})!}{(n_i - n - I)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik}$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = \dots + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz \overset{DOSD}{\Rightarrow} j_s, j_{ik}, j_i = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{\binom{()}{j_s=2}}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{\binom{()}{j_i=j_{ik}+l_i-l_{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{is}=n+\mathbb{k}-j_s+1}}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - \mathbf{l}_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbf{l}_k)!} \\
 & \frac{(n_s - \dots)}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \\
 & \frac{(l_s - \dots - 1)!}{\dots + 1) \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + \dots - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\dots)} \\
 & \sum_{n_i=\mathbf{n}+\mathbf{l}_k}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbf{l}_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜMÜŞKA

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(n - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{i=D+l_s+1}^{l_s-k+1} \sum_{j_s=2}^{(l_s-k+1)} \sum_{j_{ik}=l_i}^{l_i+j_{sa}^{ik}-1} \sum_{j_{sa}^{ik}=D-s}^{(j_i=j_{ik}+l_i-l_{ik})} \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

GÜLDÜNYA

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{l_i + j_{s_a}^{i k} - l_i - s + 1} \sum_{(j_s=1)}^{(n - j_i - l_i - l_{i k})} \\
 & \sum_{n_i = n + l_k}^n \sum_{(n_{i k} = n_i - j_{i k} + 1)}^{(n_i - j_{i k} + 1)} \sum_{(n_s = n_i - j_i - l_k)}^{(n_{i k} - j_i - l_k)} \\
 & \frac{(n_i - j_{i k} + 1)!}{(j_i - j_{i k} - l_i - l_{i k} - 1)! \cdot (n_{i k} - j_i - l_k - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_{i k} - j_i - l_k - 1)!}{(n_s - 1)!} \cdot \frac{(n_s - 1)!}{(j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_{i k} - j_{i k} - l_s - j_{s_a}^{i k} + 1)!}{(l_{i k} - j_{i k} - l_s + 1)! \cdot (j_{i k} - j_{s_a}^{i k})!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=1}^{D + l_s + s - n - l_i} \sum_{(j_s = j_{i k} - j_{s_a}^{i k} + 1)}^{(n - j_i - l_i - l_{i k})} \\
 & \sum_{j_{i k} = l_i + n + j_{s_a}^{i k} - D - s}^{l_s + j_{s_a}^{i k} - k} \sum_{(j_i = j_{i k} + l_i - l_{i k})}^{(n - j_s + 1)} \\
 & \sum_{n_i = n + l_k}^n \sum_{(n_{i s} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{i k} = n_{i s} + j_s - j_{i k}} \sum_{(n_s = n_{i k} + j_{i k} - j_i - l_k)}^{(n - j_s + 1)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_i+n-D-s)} \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(l_i - l_j)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^D \sum_{j_s=l_i+n-D-s+1}^{s-n-l_i} \binom{l_i - k - s + 1}{j_s + j_{sa}^{ik} - 1} \binom{n - j_s + 1}{n_{is} = n + \mathbb{k} - j_s + 1} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_i+n_{is}-l_{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1}$$

$$\sum_{n_{is}=n+l_k-j_{ik}}^{(n_i-j_s+1)} \sum_{(n_{ik}=n-j_i-l_k)} \sum_{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=i}^{()} \sum_{(j_s=1)}^{()}$$

GÜLDÜMWA

$$\begin{aligned}
 & \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_i + j_{sa}^{ik} - l_i - s + 1} \binom{(\quad)}{\quad} \\
 & \sum_{n_i = n + k}^n \sum_{n_{ik} = n + k - j_{ik} + 1}^{(n_i - j_{ik} + 1)} \sum_{n_s = n - j_i}^{n_{ik} + j_{ik} - j_i - k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - k)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - j_{ik} - 1)!}{(l_s - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=1}^{D + j_i - n - l_i} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_s - k + 1)} \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \binom{(\quad)}{\quad} (j_i = j_{ik} + l_i - l_{ik}) \\
 & \sum_{n_i = n + k}^n \sum_{n_{is} = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik}} \binom{(\quad)}{\quad} (n_s = n_{ik} + j_{ik} - j_i - k) \\
 & \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

GÜLDÜZÜM

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=1}^{D+l_s} \sum_{(j_s=2)}^{n-l_i(j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{fz \stackrel{DOSD}{\Rightarrow} j_s, j_{ik}, j_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-k)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}
 \end{aligned}$$

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{D+l_s+s-n+l_i+l_s-k+1} \sum_{j_s=2}^{(l_s-k+1)} \\
& \frac{(l_{ik} + j_s - 1)!}{(j_i + l_{ik} - l_i - j_s + 1)! \cdot (l_s + s - k + 1)!} \cdot \\
& \sum_{j_s=2}^{(j_s+1)} \frac{(n_{is} + k - 1)!}{(n_{is} = n + k - j_s + 1)!} \cdot \\
& \sum_{n_{ik} = k - j_{ik} + 1}^{(j_s - j_{ik})} \frac{(n_{ik} + j_{ik} - j_i - k)!}{(n_s = n - j_i + 1)!} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
\end{aligned}$$

$$\begin{aligned}
 & \sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{ik}^{ik}+1)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+l_{ik})}^{n_{is}+j_s-j_{ik}+j_{ik}-j_i+l_{ik}} \\
 & \frac{(n_{is}-j_s-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{is}-j_s-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-j_s-l_k-1)!}{(j_i-j_s-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_k)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-i^{l-1}-j_{sa}^{ik}+1)}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(l_{ik} - j_{ik} - l_i + 1)! \cdot (j_{ik} - j_{sa} - l_k)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-k)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}}^{(j_s-j_{ik}+1)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(j_s-j_{ik}+1)} \\
 & \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=1}^{D+s-n} \sum_{(j_s=2)}^{j_{ik}-j_{sa}^{ik}+1} f_z^{DOSD, j_{ik}, j_i} \\
 & \sum_{l_{ik}=l_i+n-D}^{l_s+j_{sa}^{ik}} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_{ik}=l_s+j_{sa}^{ik}-k+1)}^{(n_i-j_s+1)}$$

$$\sum_{n+l_k}^{(n+l_k-j_s+1)}$$

$$\sum_{(n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(l - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

GÜLDÜZYA

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - n_{ik} + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - j_i - n - 1)!}{(n_s - j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s - l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
 \end{aligned}$$

$$\sum_{k=i}^{()} \sum_{(j_s=1)}^{()}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
 \end{aligned}$$

GÜLDENWA

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=0}^{D+l_s+s} \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_{ik}-k} \sum_{j_{ik}=j_i+n-D}^{j_{ik}-k} \sum_{n_i=n+k}^{n_i-j_s+1} \sum_{n_s=n+k-j_s+1}^{n_i-j_s+1} \sum_{n_{ik}=n_s+j_s-j_{ik}}^{n_s=n_{ik}+j_{ik}-j_i-k} \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - n - l)! \cdot (n + j_{ik} - j_i - j_{sa}^{ik})!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D + n - l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=0}^{D+l_s+s-n-l_i} \sum_{(j_s-2)}^{(n-D-j_{sa}^{ik})} \sum_{i_{ik}=l_{ik}+n-k+1}^{i_{ik}=j_{ik}+l_i-l_{ik}} \sum_{(j_s+1)}^{(n-l_{ik}+l_s+1)} \sum_{n_{ik}+k}^{n_{ik}+k} \sum_{(n_{is}=n+k-j_s+1)}^{(n_{is}=n+k-j_s+1)} \sum_{n_{ik}+k-j_{ik}+1}^{n_{ik}+j_{ik}-j_i-k} \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-l_k)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \sum_{(n_s=n-j_i+1)}^{(n_i-n_{ik}-1)!} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-l_k-1)!}{(j_i-l_k-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_k)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{()} \sum_{l}^{()} \\
& \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}
\end{aligned}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n+l_k}^n \sum_{(n_i=n+l_k+1)}^{(n_i+l_k+1)} \\
 & \sum_{n_{ik}+j_s-j_{ik}} \sum_{(n_{ik}+j_s-j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i + j_{ik} - j_i - l - j_{sa}^{ik})!}{(n_i - j_{ik} - l)! \cdot (n_{ik} - j_i - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

GÜLDÜZMAYA

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}}^{SDOS} = \sum_{k=0}^{l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}=j_{sa}^{ik}+1)} \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_i+n-D)}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_{is}+j_s-j_{ik})} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

GÜLDÜNKYA

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_s=n-D}^{l_s-k+1} \\
& \sum_{j_{ik}=j_i+j_{sa}^{ik}}^{j_i+l_s-k+1} \sum_{j_i=l_s+s-k+1}^{j_s+1} \\
& \sum_{n_{ik}=n+l_k-j_s+1}^{n+l_k} \sum_{n_{is}=n+l_k-j_s+1}^{j_s+1} \\
& \sum_{n_{ik}+l_k-j_{ik}+1}^{s+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
\end{aligned}$$

$$\begin{aligned}
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-k+1)} \sum_{(j_i=l_i+n-D)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k+1}^{n_{is}+j_s} \sum_{(n_s=n-j_i)}^{(n_{ik}+j_i-j_i-l_k)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{ik} + j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_i+n-D)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜZÜM

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik}$

$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$

$s = 3 \wedge s = s + 1 \wedge$

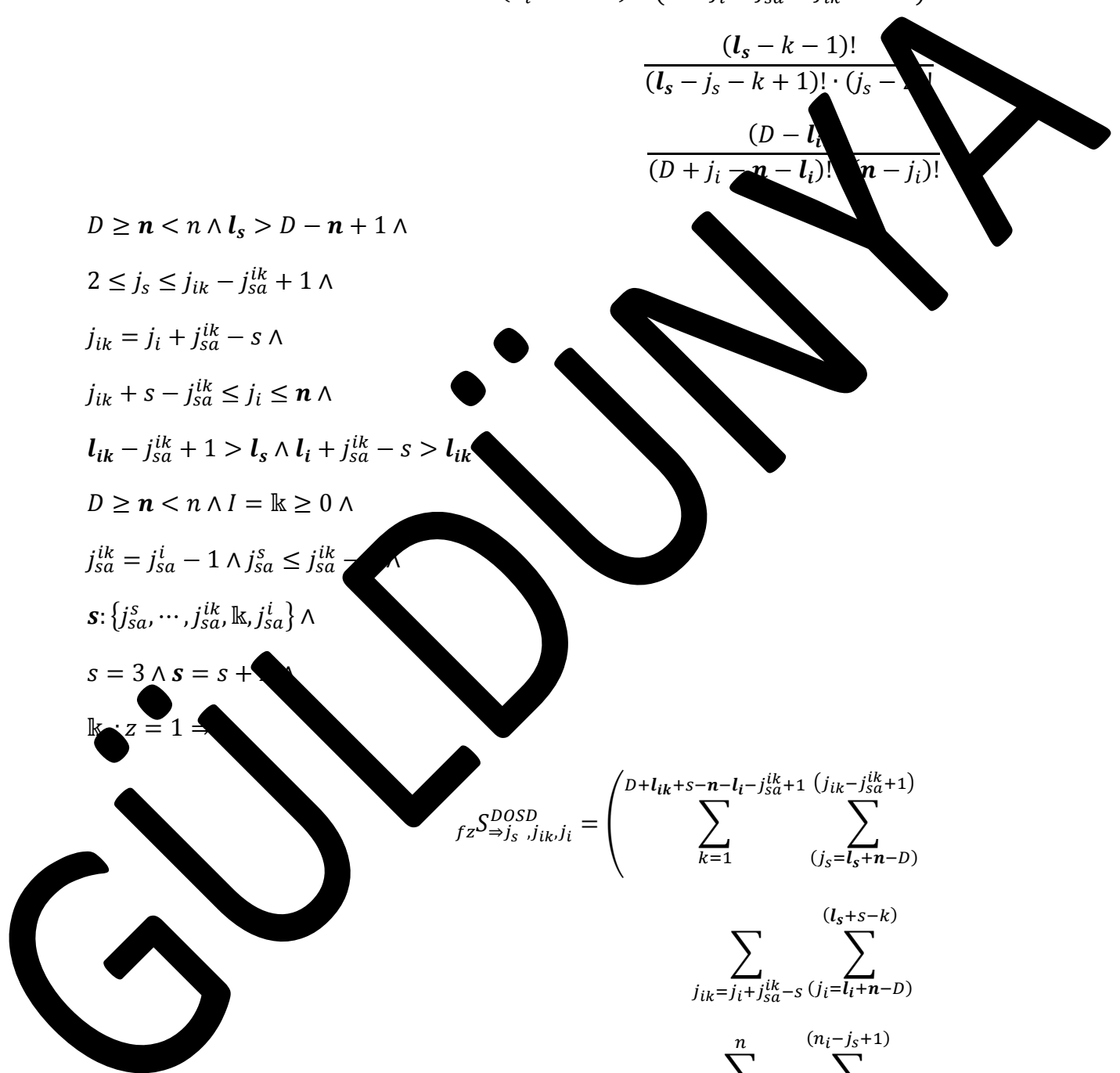
$\mathbb{k}: z = 1 \Rightarrow$

$fz \overset{DOSD}{\Rightarrow} j_s, j_{ik}, j_i = \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$

$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_i+n-D)}$

$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$

$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$



$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_{sa} - k + 1)! \cdot (l_s - j_{sa} - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_s - j_{sa} + 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{j_s=1}^{D+l_i-j_i-n-l_i-j_{sa}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \sum_{(j_i=l_s+s-k+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{j_s=n-D}^{k-j_{sa}^{ik}+1} \right) \cdot \\
& \sum_{j_i=l_{ik}+n}^{j_i+l_{ik}-s-1} \sum_{i=l_i+n-D}^{l_i+s} \cdot \\
& \sum_{n_i=n+l_k-j_s+1}^n \sum_{n_i=n+l_k-j_s+1}^{n_i+l_k-j_s+1} \cdot \\
& \sum_{n+l_k-j_{ik}+1}^{j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot
\end{aligned}$$

GÜLDÜNYA

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_i-s-k+1)}^{(l_{ik}+s-k-j_{sa}^{ik})} \\
 & \sum_{(n_{is}=n_i+1)}^{n} \sum_{(n_{ik}=n_i+1)}^{n+l_k} \\
 & \sum_{(n_{is}+j_s-j_{ik})}^{(n_{ik}+j_{ik}-j_i-1)} \\
 & \sum_{(n+l_k-j_{ik})}^{(n+l_k-j_{ik}-j_i+1)} \\
 & \frac{(n - n_{is} - 1)!}{(n - 2)! \cdot (n - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n - n_{ik} - 1)!}{(n - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)}
 \end{aligned}$$

GÜLDÜZYAZ

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=l_{ik}+s-k-j_{sa}^{ik}+2)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=j_i+1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s)(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{-n_s}{(j_i-1)!(n_{ik}+j_{ik}-n_s-j_i)!} \\
 & \frac{(n-1)!}{(n_s)(j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s)(l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +
 \end{aligned}$$

$$\sum_{k=D+l_{ik}+s-n-l_i-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_i - l_{ik} - s)!}{(j_{ik} - j_i - l_{ik} - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \left. \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \right) - \\
 & \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_i+\mathbf{n}-D)}^{()} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k})}^{()} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - \mathbf{n} - 1)! \cdot (\mathbf{n} + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}
 \end{aligned}$$

GÜLDÜMÜŞKA

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$S_{\Rightarrow j_s}^{DOSD} j_{ik} j_i = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(n - l_i)!}{(D + j_{ik} - n - l_i)! \cdot (j_i)!} + \\
 & \sum_{k=0}^{D+l_s+j_{ik}-l_i} \sum_{l=0}^{(l_s-k+1)} \sum_{m=0}^{l+n-D} \binom{l+n-D}{m} \binom{l_s-k+1}{l} \binom{D+l_s+j_{ik}-l_i}{k} \\
 & \sum_{j_{ik}=n+l_s-k+1}^{l_i+j_{sa}^{ik}-s+1} \sum_{j_{sa}^{ik}=k+1}^{(j_i)} \binom{j_i}{j_{sa}^{ik}} \binom{l_i+j_{sa}^{ik}-s+1}{j_{ik}+j_{sa}^{ik}-k+1} \binom{n}{j_{ik}+j_{sa}^{ik}-k+1} \binom{n_i-j_s+1}{n_i=n+l_s-j_s+1} \\
 & \sum_{n_{ik}=n+l_s-j_{ik}+1}^{n_i+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

GÜLDÜM YA

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{(n_{is}=n+l_k+1)}^{n+l_k} \sum_{(n_{ik}+j_{ik}-j_i-1)}^{(n_{ik}+1)} \\
 & \sum_{(n_{is}+j_s-j_{ik}-1)}^{n+l_k-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-1)}^{(n_{ik}+1)} \\
 & \frac{(n_{is}-1)! \cdot (n_{is}-n_{is}-j_s+1)!}{(n_{is}-2)! \cdot (n_{is}-n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(n_{is}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}
 \end{aligned}$$

GÜLDENWA

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k})}^{(\)}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - I)!}{(n_i - n - I)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - I)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k - 1)! \cdot (k - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i - l_i)! \cdot (n - j_i - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge$$

$$s = \{j_{sa}^i, \dots, j_{sa}^{ik}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_Z: Z = \dots \Rightarrow$$

$$f_Z^{S \Rightarrow j_s, j_{ik}, j_i} = \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - n - 1)!}{(j_s - n - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
\end{aligned}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - 1)!}{(D + j_i - n - l_i)! \cdot (n - D)!} +$$

$$\left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{j_i=n-D}^{j_{ik}-j_{sa}^{ik}+1} \right)$$

$$\sum_{j_i=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

GÜLDÜM YA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{j_s=j_{sa}^{ik}-j_{sa}^{ik}+1}^{j_{sa}^{ik}-j_{sa}^{ik}+1} (j_s = n - D)$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-j_{sa}^{ik}-D-s} \sum_{j_{ik}=l_i-k}^{l_i-k} (j_{ik} = n + s - j_{sa}^{ik} + 1)$$

$$\sum_{n_i=n-k}^n \sum_{n_{is}=n+k-j_s+1}^{n-k} (n_{is} = n + k - j_s + 1)$$

$$\sum_{n_s=n+k-j_{ik}+1}^{j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-k} (n_{ik} + j_{ik} - j_i - k)$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+j_s-j_{sa}^{ik}+1)}^{(l_i-k+1)} \\
 & \frac{(n - n_{is} + 1)!}{(n + l_k - j_{ik} - n_{is} - 1)!} \cdot \frac{(n_{is} + j_s - j_{ik} - n_{is} - 1)!}{(n_{ik} + j_{ik} - j_i - 1)!} \\
 & \frac{(n - n_{ik} - 1)!}{(n - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_{ik}+s-n-l_i-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{is}-j_i+1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s)}{(j_i-j_s-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \\
 & \frac{(n_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \left. \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \right) - \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik}$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k} : z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{\binom{()}{j_s=l_s+n-D}}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{\binom{()}{j_i=j_{ik}+s-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{is}=n+\mathbb{k}-j_s+1}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n-j_i+1}}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (l_s - j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_s - j_{sa} - 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{j_s=1}^{l_s+s-n-l_i} \sum_{j_s=l_i+n-D-s+1}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=D+l_s+s-j_i+1}^{D-n+1} \sum_{j_s=k+1}^{l_s-k+1} \sum_{j_{sa}^{ik}=j_s+1}^{j_s+n-D} \sum_{j_{ik}=j_{ik}+s-j_{sa}^{ik}}^{j_s+1} \\
 & \sum_{j_{sa}^{ik}=j_s+1}^{l_i+j_{sa}^{ik}-s+1} \sum_{j_{ik}=j_{ik}+s-j_{sa}^{ik}}^{j_s+1} \sum_{n_{is}=n+l_k-j_s+1}^{n_{is}+l_k} \sum_{n_{ik}=n+l_k-j_{ik}}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \sum_{n_{is}=n+l_k-j_{ik}+1}^{n_{is}+l_k} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-1} \sum_{(n_s=n_{ik}+j_{ik}-j_{sa}^{ik})}^{(\quad)}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - j_{sa}^{ik} - s - I)!}{(i - s - I)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - j_{sa}^{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(n_i - j_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n - 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_s + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq n \wedge$$

$$l_{ik} = j_{sa}^{ik} + 1 > l_s \wedge j_{sa}^{ik} - j_{sa}^{ik} = l_{ik} \wedge$$

$$\geq n < n \wedge I = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^k, k, j_{sa}^i\} \wedge$$

$$= 3 \wedge s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$f_z^{DOSD} S_{j_s j_{ik} j_i} = \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_i+n-D-s)} \right)$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_{ik}-k+1} \binom{(\quad)}{j_i=j_{ik}+s-j_{sa}^{lk}} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-j_{sa}^{lk}+n_{is}+j_{sa}^{lk}-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(-n_s)}{(j_i-1)!(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{lk}+1)!}{(j_{ik}-j_s-l_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{lk}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{lk}+1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{l_{ik}-k+1} \binom{(\quad)}{j_i=j_{ik}+s-j_{sa}^{lk}} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l_k - 1)!}{(l_s - l_k - 1)! \cdot (l_s - l_k - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \left(\frac{(D - l_i)!}{(D + j_i - l_i - l_i)! \cdot (n - j_i)!} \right) + \\
 & \left(\sum_{k=1}^{D+l_i+l_s-n-l_i-j_{sa}+1} \sum_{(j_s=l_s+n-D)}^{(l_i+n-D-s)} \right) \cdot \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \cdot \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \cdot \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}} \sum_{j_s=l_s+n-k}^{l_i+j_{sa}^{ik}+D-s} \frac{(n - j_s - k)!}{(j_s - l_s - k + 1)!} \cdot$$

$$\sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_k)} \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

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$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_s=j_s+1)}^{(l_i-k+1)}$$

$$\sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}+l_k-j_s+1)}^{(n_{ik}+l_k-j_s+1)}$$

$$\sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)} \sum_{(n_i-n_{is}-1)!}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\begin{aligned}
 & \sum_{k=D+l_{ik}+s-n-l_i-j_{sa}^{ik}+2}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k}^{n_{is}+j_s} \sum_{(n_s=n-j_i)}^{(n_{ik}+j_i-j_{ik})} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_i - n_s - 1)!}{(n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 & \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) - \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}
 \end{aligned}$$

GÜLDÜZYA

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k})}^{(\quad)}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - I)!}{(n_i - n - I)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - I)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k - 1)! \cdot (k - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$

$s = \{j_{sa}^i, \dots, j_{sa}^{i-1}, j_{sa}^i\} \wedge$

$s = 3 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: Z = \dots \Rightarrow$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-k)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - n - 1)!}{(j_s - n - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \sum_{(j_i=l_s+s-k+1)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜMÜŞKA

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_s - 1)!}{(D + j_s - n - l_i)! \cdot (j_i - 1)!} + \\
& \sum_{j_{ik}=j_{sa}^{ik}-s}^{D-n+l_s+s} \sum_{j_i=l_{ik}+n+s-D-j_{sa}^{ik}}^{(l_s-k+1)} \sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_{ik}+j_{sa}^{ik}-D-j_{sa}^{ik})}^{(n_i-1)} \sum_{(n_i-1)}^{(n_i-1)} \sum_{(n_i-1)}^{(n_i-1)} \sum_{(n_i-1)}^{(n_i-1)} \frac{(n_i - 1 + j_{sa}^{ik} - 2 \cdot s - I)!}{(n_i - n - I)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > n - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} = j_i + j_{sa}^{ik} - s$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i \wedge l_{ik} - j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D - n = I \wedge I = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, j_{sa}^{ik}, k, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{S_{DOSD}} &= \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+l_k-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+l_k)}^{n_{is}+j_s-j_{ik}+j_{sa}^{ik}-j_i-l_k} \\
 &\frac{(n_s - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - j_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot \\
 &\frac{(n_s - n_s - 1)!}{(n_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 &\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 &\sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - n - 1)!}{(j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜMÜŞKA

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{D+l_s+s-j_{ik}} \binom{D+l_s+s-j_{ik}}{k} \sum_{j_{sa}^{ik}=1}^{j_{ik}-j_{sa}^{ik}+1} \binom{j_{ik}-j_{sa}^{ik}}{j_{sa}^{ik}} \sum_{j_i=l_{ik}+n-D}^{l_s-j_{ik}+k} \binom{l_s-j_{ik}+k}{j_i} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \binom{n_i-j_s+1}{n_{is}} \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \binom{n_i-j_s+1}{n_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(n_s=n_{ik}+j_{ik}-j_i-l_k)} \binom{n_s-n_{ik}-j_{ik}+j_i+l_k}{n_s} \cdot \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{ik} = j_i + j_{sa}^{ik} - s \wedge j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, k, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{l_i=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s \dots D)}^{(D-j_{sa}^{ik})} \sum_{l_{ik}=l_i-k+1}^{l_{ik}-k+1} \sum_{(n_i=n+kk)}^{(n_i-n_{is}+1)} \sum_{(n_i=n+kk)}^{(n_i=n+kk-j_s+1)} \sum_{n_{ik}=n+kk-j_{ik}+1}^{n_{ik}=n+kk-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

GÜLDÜNYA

$$\begin{aligned}
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{sa}^{ik}+1}^{n_{is}+j_s-j_{sa}^{ik}} \sum_{(n_{ik}+j_{sa}^{ik}-j_i+l_k)}^{(n_{ik}+j_{sa}^{ik}-j_i+l_k)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{ik} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_i - n_s - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_i)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - \dots)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - \dots - 1)!}{\dots + 1) \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_i - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + \dots - \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{j_s+\mathbf{n}-l_i} \sum_{(j_s=l_{ik}+\mathbf{n}-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\dots)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k})}^{(\dots)} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - \mathbf{n} - 1)! \cdot (\mathbf{n} + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜMÜŞKA

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\sum_{j_s \rightarrow j_s, j_{ik}, j_i}^{D} = \sum_{k=1}^{i^{l-1} (j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=s+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}^{(l_i - 1)} \sum_{j_{ik}=j_i+1}^{(l_i - 1)} \sum_{j_s=l_s+s-k+1}^{(l_i - 1)} \sum_{n_i=n+lk}^{(n_i - j_s + 1)} \sum_{n_{is}=n+lk-j_s+1}^{(n_i - j_s + 1)} \sum_{n_{ik}=lk-j_{ik}+1}^{(n_{is} + j_s - 1)} \sum_{(n_s=n-j_i+1)}^{(n_{ik} + j_{ik} - j_i - lk)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
 \end{aligned}$$

GÜLDÜNYA

$$\begin{aligned}
 & \sum_{k=1}^{i-1} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-i+1)} \sum_{(j_i=1)}^{(l_i-i+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-1} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(n - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_i - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{i-1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=s+1)}^{(l_s+s-k)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot
 \end{aligned}$$

GÜLDENWA

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{(j_s)} \sum_{l=1}^{(j_s - k)} \sum_{i=1}^{(j_s - k - l)} \sum_{s=1}^{(j_s - k - l - i)} \frac{(n_i - j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}{(n_i - n - l_i)! \cdot (n + j_i - j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge \\ & j_{ik} = j_i + j_{sa}^{ik} - s \wedge \\ & (j_i + s - j_{sa}^{ik} \leq j_i \leq n) \vee \\ & (l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - j_{ik} \leq l_i \wedge \\ & l_i \leq D - (s - n) \vee \\ & (D \geq n < n \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge \\ & j_{ik} = j_i + j_{sa}^{ik} - s \wedge \\ & (j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee \\ & (D \geq n < n \wedge l_s \leq D - n + 1) \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge \\ & j_{ik} = j_i + j_{sa}^{ik} - s \wedge \end{aligned}$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, k, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

GÜLDÜNKYA

$$\begin{aligned}
 & \sum_{i=2}^{l-1} (j_{ik} - j_{sa}^{ik} + \dots) \\
 & \sum_{j_i = j_i + j_{sa}^{ik} - s}^{(l_s + s - k)} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik-s}}^{(l_{ik+s} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{(n_i - j_s + 1)} \sum_{(n_{is} - l_k - j_s + 1)}$$

$$\sum_{(n_{ik} - j_{ik} - j_i - l_k)} \sum_{(n_s = n - j_i + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{()} \sum_{i^l (j_s=1)}$$

GÜLDÜMÜŞA

$$\begin{aligned}
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \binom{l_{ik}+s-i-l-j_{sa}^{ik}+1}{(j_i=s)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n_s - 1)! \cdot (n - j_i)!} \\
 & \frac{(j_{ik} - l_s - j_{sa}^{ik} - 1)!}{(j_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) + \\
 & \left(\sum_{k=1}^{i-l-1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=s+2)}^{(l_s+s-k)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}
 \end{aligned}$$

GÜLDEN

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - l_{ik} - s)!}$$

$$\frac{(D - 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{j_s=2}^{i^{l-1} (l_s - k + 1)}$$

$$\sum_{j_i=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}+1} \sum_{(j_i=l_s+s-k+1)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

GÜLDÜMNYA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{l_i} \sum_{s=2}^{(l_s - k + 1)}$$

$$\sum_{s=1}^{l_{ik} - k} \sum_{j_i = s - k - j_{sa}^{ik} + 2}^{(l_i - k)}$$

$$\sum_{n_i = l_{ik} - k}^n \sum_{n_{is} = n + l_{ik} - j_s + 1}^{(n_i - k)}$$

$$\sum_{n_i = l_{ik} - j_{ik} + 1}^{j_s - j_{ik}} \sum_{n_s = n - j_i + 1}^{(n_{ik} + j_{ik} - j_i - l_{ik})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{i-1} \sum_{(j_s=1)}^{(n)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i+1} \sum_{(j_i=j_{ik}-j_{sa}^{ik}+1)}^{(l_i-i+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n-j_i+k)}^{(n_{ik}+n-j_i-k)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_s - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_s + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s - j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(l_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 & \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) - \\
 & \sum_{k=1}^{i-1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(n)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=s+1)}^{(n_s+s-k)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜZYA

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - I)!}{(n_i - n - I)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - \dots)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (j_i - j_i)!} \sum_{k=i}^n \sum_{\binom{()}{j_s=1}} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{\binom{()}{j_i=s}} \sum_{i=1}^n \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - \mathbb{k})!}{(n_i - \dots - \mathbb{k})! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$D \geq n < n \wedge l_s \geq 0 - n + \dots \wedge$
 $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$
 $j_{ik} = j_i + j_s - s \wedge$
 $j_{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge$
 $l_{ik} - j_{sa}^{ik} + \dots > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$
 $l_{ik} \leq j_{sa}^{ik} - n \wedge$
 $D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$
 $j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$
 $s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{i^{l-1} (j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{(j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s + j_{sa}^{ik} - k} \sum_{(j_i=1)}^{(n_i - j_{ik} + s - j_{sa}^{ik})} \frac{(n_i - j_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - j_i - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}$$

GÜLDÜZYA

GÜLDENWASSER

$$\begin{aligned}
 & \sum_{j_{ik}=l_s+j_{sa}^{lk}-k+1}^{l_i+j_{sa}^{lk}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{lk})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-1)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_s-n_i-1)!}{(j_i-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{lk}+1)!}{(j_{ik}-j_s-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{lk}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \sum_{k=i}^n \sum_{(j_s=1)}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!}
 \end{aligned}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{j_s=1}^{j_{ik}-j_{sa}^{ik}}$$

$$\sum_{j_{sa}^{ik}=1}^{j_{ik}-k} (j_i = j_{ik} + s - j_{sa}^{ik})$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_s=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{j_i} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}$$

GÜLDÜNYA

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{ik}=n_i-j_{ik}+1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - \dots)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz^{S \Rightarrow j_s, j_{ik}, j_i} = \left(\sum_{k=1}^{i^{l-1} (j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s + j_{sa}^{ik} - k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+lk}^n \sum_{(n_{is}=n-j_s+1)}^{(n-j_s+1)}$$

$$n_{is}+j_s-j_{ik} \quad (n_{is}=n-j_s+1)$$

$$\sum_{n_{ik}=n+lk-j_{ik}}^{\Delta} \sum_{(n_s=n-j_i+1)}$$

$$\frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n-j_s-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

$$\sum_{k=1}^{i^{l-1} (l_s-k+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

GÜLDÜZYAN

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} + j_{ik} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - j_i - n_{i_s} - 1)!}{(n_s - j_i - n_{i_s} - j_i - j_i)!} \cdot \\
 & \frac{(n_{i_s} - j_s - n_{i_s} - 1)! \cdot (j_s - 2)!}{(n_{i_s} - j_s - n_{i_s} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{i_s}^{ik} + 1)!}{(n_{i_s} + l_{ik} - j_{i_s}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{i_s}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=i}^l \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{i_s}^{ik}}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+s-j_{i_s}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}
 \end{aligned}$$

GÜLDÜSÜZ

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \left(\sum_{k=1}^{i-1} \sum_{s=2}^{k-j_{sa}^{ik}+1} \right) \\
& \sum_{k=1}^{l_s+j_s-j_{ik}} \sum_{s=2}^{l_i-k+1} (j_{ik}+1)(j_{ik}+s-j_{sa}^{ik}+1) \\
& \sum_{n_i=1}^n (n_{is}=n+k-j_s+1) \\
& \sum_{n+k-j_{ik}+1}^{j_s+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s + j_{sa}^{ik} - k + 1}^{l_{ik} - k + 1} \sum_{(j_i=j_{ik} - j_{sa}^{ik} + 1)}^{(l_i - k + 1)}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}^{(n_{is}+1)}$$

$$\sum_{n+l_k-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-l_{ik})}^{(n_{ik}+j_{ik}-j_i-l_{ik})}$$

$$\frac{(n - n_{is} - 1)!}{(n - 2)! \cdot (n - n_{is} - j_s + 1)!}$$

$$\frac{(n - n_{ik} - 1)!}{(n - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{()} \sum_{(j_s=1)}^{()}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}}^{l_i - l_i + 1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik}+1)}^{(l_i - l_i + 1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \\
 & \frac{(n_{ik} - j_i - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n - j_i)!} \cdot \\
 & \frac{(n_i - j_i - 1)!}{(n_i + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - j_{sa}^{ik} - l_{ik} - 1)!}{(l_s - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(n_i + l_i - j_i - l_i)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 & \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) - \\
 & \sum_{k=1}^{i-1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot
 \end{aligned}$$

GÜLDÜZ

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$\sum_{k=1}^{()} \sum_{j_s=2}^{()}$
 $\sum_{i=1}^{()} \sum_{j_i=s}^{()}$
 $\sum_{n_i=n+l_i}^{()} \sum_{j_i=1}^{()} \sum_{j_{ik}=j_i-l_k}^{()}$

$$\frac{(n_i - j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}{(n_i - n - l_i - j_{sa}^{ik} + j_{ik} - 2 \cdot s)! \cdot (D - l_i)!} \cdot \frac{(D - l_i)!}{(D - s - n - l_i)! \cdot (n - s)!}$$

- $D \geq n < n \wedge l_s \leq D - n \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{ik} = j_i + j_{sa}^{ik} - s$
- $j_i + s - j_{sa}^{ik} \leq j_i \leq n$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} \leq j_{ik} \wedge$
- $l_{ik} \leq l_s \wedge j_{sa}^{ik} - n \wedge$
- $D \geq n < n \wedge \mathbb{k} \geq 1 \wedge$
- $j_{sa}^{ik} \leq j_{sa}^s - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$
- $s: \{j_{sa}^s, \dots, j_{sa}^i, \mathbb{k}, j_{sa}^i\} \wedge$
- $s = s + \mathbb{k} \wedge$
- $\mathbb{k}_z: z = 1 \Rightarrow$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{j_s=2}^{()}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_i)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)}$$

$$\frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_s-n_s-1)!}{(j_i-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_s-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{lk}}^{l_i+j_{sa}^{lk}-l-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{lk})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{l-1} \sum_{(j_s=1)}^{(j_s=k+1)}$$

$$\sum_{j_{ik} + j_{sa}^{ik} - 1}^{(j_i = j_{ik} + s - j_{sa}^{ik})}$$

$$\sum_{n_i = n + l_k}^{(n_i - j_s + 1)} \sum_{(n_i = n + l_k - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik}}^{(n_s = n_{ik} + j_{ik} - j_i - l_k)}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{(l)} \sum_{(j_s=1)}^{(j_s=k)}$$

$$\sum_{j_{ik} = j_{sa}^{ik}}^{(j_i = s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{ik}=n_i-j_{ik}+1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - \dots)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \binom{i^{l-1} (l_s - k + 1)}{\sum_{k=1} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \binom{(\quad)}{\sum_{(j_i=j_{ik}+s-1)}$$

$$\sum_{n_i=n+l_k}^n \binom{(n_i-j_s+1)}{\sum_{(n_i=n+l_k-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{n_{is}+j_s-j_{ik}} \binom{(n_i-j_s+1)}{\sum_{(n_i=n+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{ik}=n+l_k-j_{ik}+1} \binom{(n_s=n-j_i+1)}$$

$$\frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_i-j_s+1)!}$$

$$\frac{(n_{is}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{is}-1)!}{(n_{is}-n_s-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

$$\sum_{k=1} \binom{(\quad)}{\sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i^{l+1}} \binom{(\quad)}{\sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

GÜLDÜZÜMÜS

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_k-j_{ik}+1}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - j_{sa} + 1)! \cdot (j_{ik} - j_{sa} - l_k)!} \cdot \\
 & \left(\frac{(D - l_{ik})!}{(D - n_i - n_{ik} - 1)! \cdot (n - j_i)!} \right) + \\
 & \left(\sum_{k=1}^{i-l-1} \sum_{j_s=2}^{(l_s-k+1)} \right) \\
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{l_{ik}^{k+1}} \sum_{j_i=j_{ik}+s-j_{sa}^{lk}+1}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}
 \end{aligned}$$

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$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{i-1} \sum_{j_s=2}^{l_s-k+1}$$

$$\sum_{j_{ik}=1}^{n_i - j_{ik} + 1} \sum_{j_i=1}^{n_i - j_i + 1}$$

$$\sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-k}$$

$$\sum_{n_i=n+k}^n \sum_{n_i+l_k-j_{ik}+1}^{n_i-j_{ik}+1}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{i-1} \sum_{j_s=2}^{l_s-k+1}$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n_i-j_s+1)} \\
 \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(n_i-j_s+1)} \\
 \frac{(n_i+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s-l)!}{(n_i-n-l)! \cdot (n+j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 \frac{(l_s-l_k-1)!}{(l_s-l_k+1) \cdot (j_s-2)!} \\
 \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
 \sum_{k=l}^{(n_i-j_s+1)} \sum_{(j_s=1)}^{(n_i-j_s+1)} \\
 \sum_{j_{ik}=j_{sa}^{ik}}^{(n_i-j_s+1)} \sum_{(j_i=s)}^{(n_i-j_s+1)} \\
 \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{(n_i-j_s+1)} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k}^{(n_i-j_s+1)} \\
 \frac{(n_i+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s-l_k)!}{(n_i-n-l_k)! \cdot (n+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s)!} \cdot \\
 \frac{(D-l_i)!}{(D+s-n-l_i)! \cdot (n-s)!}$$

$$D \geq n < l_s \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz \stackrel{DOSD}{\Rightarrow} j_s, j_{ik}, j_i = \sum_{k=1}^{D+l_s+s-n-l_i(j_{sa}^{ik}+1)} \sum_{j_s=j_s-k}^{(l_s+s-k)} \sum_{j_{ik}=j_i+j_s-k}^{(l_s+s-k)} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-k+1)} (j_i=l_s+s-k+1) \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k+1}^{n_{is}+j_s} \sum_{(n_s=n-j_i)}^{(n_{ik}+j_i-j_i-l_k)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{ik} + j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_i - n_s - 1)!}{(n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-k+1)} (j_i=l_i+n-D) \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_i)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_i - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{()} \sum_{l=1}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i - l+1)} \sum_{(j_i=l_i+n-D)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}
 \end{aligned}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots)}$$

$$\sum_{(j_s=j_i+j_{sa}^{ik}-s, \dots)}$$

$$\sum_{(n_i-j_s+1, \dots)}$$

$$\sum_{n_{ik}+j_s-j_{ik} = n_{ik}+j_{ik}-j_i-l_k}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - l_i)! \cdot (n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\begin{aligned} & ((D \geq n < n \wedge l_s \leq D - n + 1 \wedge \\ & 1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge \\ & j_{ik} = j_i + j_{sa}^{ik} - s \wedge \\ & j_{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge \\ & l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge \\ & D + j_i - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}) \vee \end{aligned}$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, k, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$f_z^{SDOSD} j_{ik}, j_i = \sum_{k=1}^{(l_{ik} + s - n - l_i - j_{sa}^{ik} + 1)} \sum_{j=2}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{k=j_i + j_{sa}^{ik} - s}^{(l_s + s - k)} \sum_{j_i = l_i + n - D}^{(n - j_s + 1)} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}-s}^{(l_{ik}+s-j_{sa}^{ik}+1)} \sum_{(n_i-j_s+1)}$$

$$\sum_{(n_{ik}+k-j_s+1)} \sum_{(n_i-j_{ik})}$$

$$\sum_{(n_s=n-j_i+1)} \sum_{(n_i-n_{is}-1)!}$$

$$\frac{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}{(n_{is} - n_{ik} - 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right)$$

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$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_i+n-D)}^{(l_s+s-k)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=j_i+1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_s-n_s)!}{(j_i-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_i-1)!}{(n_s)! \cdot (j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_s+s-k+1)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} - j_i - l_{ik} - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 & \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-\mathbf{n}-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{l_{ik}-k+1} \sum_{(j_i=l_{ik}+s-k-j_{sa}^{ik}+2)}^{(l_i-k+1)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}
 \end{aligned}$$

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$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!} \cdot$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{ik} - l_{ik} - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D}^{i^{l-1}} \sum_{j_s=2}^{(l_s-k+1)} \frac{1}{(n_{is} + j_s - n - l_i - j_{sa}^{ik} + 2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\begin{aligned}
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l_i}^{(j_s)} \binom{(j_s)}{k} \\
 & \sum_{j_{ik}=l_i+n-D}^{l_i+1} \binom{(l_i - l_i + 1)}{j_{ik} - l_i + n - D} \\
 & \sum_{i=n+l_k}^n \binom{(n_i - j_{ik} + l_k)}{n_i - l_k - j_{ik} + 1} \sum_{n_s=n-j_i+1}^{n_{ik} + j_{ik} - j_i - l_k} \binom{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) - \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s)}
 \end{aligned}$$

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$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-k)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+l_k)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_s-j_i-l_k)}^{()}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} + s - 1)!}{(n_i - n - l)! \cdot (n_i + j_{sa}^{ik} - j_{ik} + s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_{sa}^{ik} - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{ik} + 1 > l_s \wedge j_{sa}^{ik} + j_{sa}^{ik} - s = l_{ik} \wedge$

$D - s - n < l_i \leq D + l_s \wedge s - n - 1 \wedge$

$D \geq n < n \wedge l = 0 \wedge$

$j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_s - 1 \wedge$

$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, j_i\}$

$s - 3 \wedge j_{sa}^s \leq s + k \wedge$

$k_z: z = 1$

$$fz S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \binom{(\quad)}{\quad} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-1)} \\
 & \frac{\binom{n_i-1}{j_s-2} \binom{n_i-n_{is}-1}{(n_i-n_{is}-1)!}}{\binom{n_{is}-n_{ik}-1}{(j_{ik}-j_s-2)!} \binom{n_{is}+j_s-n_{ik}-j_{ik}}{(n_{is}+j_s-n_{ik}-j_{ik})!}} \\
 & \frac{\binom{n_s-n_{ik}-1}{(j_i-n_{ik}-1)!} \binom{n_{ik}+j_{ik}-n_s-j_i}{(n_{ik}+j_{ik}-n_s-j_i)!}}{\binom{n_s-1}{(n_s-1)!} \cdot \binom{n-j_i}{(n-j_i)!}} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_s=2}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k-s+1}^{l_i+j_{sa}^{ik}-k-s+1} \binom{(\quad)}{\quad} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_{sa} - k + 1)! \cdot (l_s - j_{sa} - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_s - j_{sa} - k + 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{i=0}^{l_i} \sum_{j_s=2}^{(l_s - k + 1)} \sum_{j_{ik}=l_i + n + j_{sa}^{ik} - k - s + 1}^{i!} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(l_s - k + 1)} \\
 & \sum_{n_i = n + l_k}^n \sum_{(n_{is} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + l_k - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}
 \end{aligned}$$

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$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{()} \sum_{(j_s=1)}$$

$$\sum_{j_{sa}^{ik}=l_i+j_{sa}^{ik}-s+1}^{()} \sum_{(j_{ik}=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+lk}^n \sum_{(n_{ik}=n+lk-s+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n-j_i+1)}^{(n_i-j_i-l_k)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+lk}^n \sum_{(n_{is}=n+lk-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_k}}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_i + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$(D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik})) \wedge$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^i, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-j_s+1)}^{(n-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_{sa}^{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{is}-j_{ik}-k)} \\
 & \frac{(n_{is}-1)!}{(j_s-1)! \cdot (n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{is}-n_s-1)!}{(n_{ik}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - j_i)!} \cdot \\
 & \frac{(n - j_s - n - l_k - 1)!}{(n - j_s - n - l_k - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} + j_{sa}^{ik} - j_i - n - l_k - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \left(\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) + \\
 & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \left. \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right)
 \end{aligned}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_s + 1)!} \cdot$$

$$\frac{(l_s + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{ik} - l_s - s)! \cdot (j_i + j_s - j_{ik} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{D+l_s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik}+1)}^{(l_i-k+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=0}^{D+l_{ik}+s-n-l_i-j_{ik}+1} \sum_{j_s=2}^{(j_s-k+1)}$$

$$\sum_{j_{ik}=l_s+j_s-j_{ik}+1}^{n} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}+1}^{(n_i-j_s+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

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$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_i=l_{ik}+n-l_i-j_{sa}^{ik}+1}^{l_{ik}-k+1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}+l_k-j_s+1)}$$

$$\sum_{(n_{ik}-j_i-l_k)}^{(n_{ik}-j_i-l_k)}$$

$$\sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\begin{aligned}
 & \sum_{k=1}^n \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i+1} \sum_{(j_i=l_i+n)}^{(l_i-i+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-1} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_i + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - j_i - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_i - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) - \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k)}^{()}
 \end{aligned}$$

GÜLDÜSÜZ

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i - 1)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{S^{DOSD}} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!}$$

$$\frac{(n - l_i)!}{(n - l_i)! \cdot (n - j_i)!}$$

$$\frac{(n - l_i - 1)!}{(n - l_i - 1)!}$$

$$\sum_{k=1}^{\Delta} \sum_{j_s=l_i+n-D-s+1}^{\Sigma} (j_s=l_i+n-D-s+1)$$

$$\sum_{i_k=j_s+j_{sa}^{ik}-1}^{l_i} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

GÜLDÜMNA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_i+n_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \binom{j_{ik}}{j_{sa}^{ik}}$$

$$\sum_{n_{is}=n_{ik}+l_k-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_s=n-j_i+1}^{(n_{ik}+l_k-j_i-l_k)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=i}^{()} \sum_{l(j_s=1)}$$

GÜLDÜZYA

$$\begin{aligned}
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-i^{l-s+1}} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_i + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(j_{ik} - l_s - j_{ik} - 1)!}{(j_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

GÜLDENWA

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k}$$

$$\mathbb{k} = z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_i+n-D-s)} \right. \\ \left. \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \right) \\ \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_{sa} - k + 1)! \cdot (l_s - j_{sa} - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_{ik})!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=0}^{D+l_{ik}+s-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

GUIDANCE

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_{ik})!} \cdot \\
& \left(\sum_{k=2}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{k=2}^{n-D-s} \right) \\
& \sum_{l_i+n-D}^{j_i+j_{sa}^{ik}-1} \sum_{l_i+n-D}^{(l_{ik}+s-k-1)} \\
& \sum_{n_i}^n \sum_{n_i+n-k}^{n_i+k} (n_{is}=n+k-j_s+1) \\
& \sum_{n_i+l_k-j_{ik}+1}^{+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}
\end{aligned}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_i+n-D-s)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=l_{ik}+j_{ik}-j_{sa}^{ik}+2)}^{(l_i-k+1)} \\
 & \sum_{(n_{is}=n+l_k+1)}^{n+l_k} \sum_{(n_{ik}+j_{ik}-j_i-1)}^{(n_{is}+1)} \\
 & \sum_{(n_{is}+j_s-j_{ik})}^{(n_{ik}+j_{ik}-j_i-1)} \sum_{(j_i=j_i+1)}^{(n_{is}+1)} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik}+1)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=j_i+1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-j_{sa}^{ik}+1) \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{-n_s}{(j_i-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n-1)!}{(n_s) \cdot (j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=D+l_{ik}+s-n-l_i-j_{sa}^{ik}+2}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=i}^{\binom{D}{i}} \sum_{l=1}^{\binom{D}{i}}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i^{l+1}} \sum_{(j_i=l_i+n-D)}^{(l_i-i^{l+1})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

GÜLDENKA

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \left(\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_s=l_i+n-D-s+k}^{(n-k)} \sum_{n_i=n+k}^n \sum_{(n_s=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k)}^{()}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D - n < l_s \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{sa}^{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{l_s=2}^{D+l_s+s-n-l_{ik}-j_{sa}^{ik}+1} \sum_{j_i=2}^{l_s+s} \sum_{j_{sa}^{ik}=s}^{j_i-1} \sum_{n_i=0}^{n-l_{ik}-j_{sa}^{ik}+1} \sum_{n_{is}=\mathbb{k}}^{n-l_{ik}-j_{sa}^{ik}+1} \sum_{n_{ik}=\mathbb{k}}^{n-l_{ik}-j_{sa}^{ik}+1} \sum_{n_s=j_{sa}^{ik}-j_{ik}+1}^{n-l_{ik}-j_{sa}^{ik}+1} \sum_{n_s=n-j_i+1}^{n-l_{ik}-j_{sa}^{ik}+1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_s+s-k+1)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-l_k)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_i - n_s - 1)!}{(n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-k-j_{sa}^{ik}+1)}
 \end{aligned}$$

GÜLDÜZYAZ

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - j_i - n_{i_s} - 1)!}{(n_s - j_i - n_{i_s} - j_i - j_i)!} \cdot \\
 & \frac{(n_{i_s} - j_s - n_{i_s} - 1)! \cdot (j_s - 2)!}{(n_{i_s} - j_s - n_{i_s} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{i_s} + l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{()} \sum_{i=l}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-i-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot
 \end{aligned}$$

GÜLDÜSÜYA

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{D+l_s+s-n-l_i} \binom{D+l_s+s-n-l_i}{k} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{l_s+k} \binom{l_s+k}{j_s} \sum_{j_i=j_{sa}^{ik}-s}^{l_i+k-j_s} \binom{l_i+k-j_s}{j_i} \sum_{j_{ik}=n+l_k}^{n+l_k+l_s-j_s+1} \binom{n+l_k+l_s-j_s+1}{j_{ik}} \sum_{n_{ik}=n+l_k-j_s-j_{ik}}^{n_s=n_{ik}+j_{ik}-j_i-l_k} \binom{n_s=n_{ik}+j_{ik}-j_i-l_k}{n_{ik}} \cdot \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i + n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$n \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$n + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s-1)} \dots$$

$$\sum_{j_{ik}=l_{ik}+n}^{l_s+j_{sa}^{ik}-k} \dots$$

$$\sum_{n+l_k}^{(n_i-j_s+1)} \dots$$

$$\sum_{n+l_k-j_s+1}^{(n_s-n-j_i+1)} \dots$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{D+l_s+s-n-l_i(l_s-k+1)} \sum_{(j_s=2)}^{(j_s-1)}$$

GÜLDÜNYA

$$\begin{aligned}
 & \sum_{j_{ik}=l_s+j_{sa}^{lk}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \binom{(\quad)}{\quad} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s)(n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_s-n_{ik}-1)!}{(j_i-1)!(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_s-j_i-1)!}{(n_s-j_i-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{lk}+1)!}{(j_s)(l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{lk}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \binom{(\quad)}{\quad} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

GÜLDÜZMİN

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - l_{ik} - 1)!}{(l_s - j_s - l_{ik} - 1)! \cdot (l_s - j_s - l_{ik} - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=i}^{\infty} \sum_{l=1}^{\infty} \binom{(\cdot)}{j_s=1}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{\binom{(\cdot)}} \binom{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{sa}^{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i)}^{()}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^{ik} - I)!}{(n_i - I)! \cdot (n_i + j_{sa}^{ik} - 2 \cdot s)!} \cdot \frac{(n_i - j_s + 1)!}{(n_i - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} = j_{sa}^{ik} + 1 > l_s \wedge l_{ik} + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n + l_i \leq D + j_{sa}^{ik} + s - n - 1 \wedge$$

$$D \geq n < n \wedge l_s \leq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^{ik}, l_k, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + l_k \wedge$$

$$l_k: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{S_{DOSD}} = & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_{ik}+n-D-j_{sa}^{ik})} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_{sa}^{ik}+1}^{(n_{ik}+j_{sa}^{ik}-j_i-k)} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{sa}^{ik}-j_i-k)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - n_{ik} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_i - n_s - 1)!}{(n_i - j_{ik} - 1)! \cdot (n_{ik} + j_{sa}^{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜZÜMÜ

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜMÜŞKA

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(l_i - 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{l_{ik} - l_i + 1} \sum_{(j_s=1)}^{(j_s=l_{ik}+n-D)} \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(j_i=j_{ik}+s-j_{sa}^{ik})} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-k}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)}$$

GÜLDÜMÜŞA

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \sum_{n_i=n+l_k} \sum_{(n_{is}=n+l_k-j_s)} \sum_{(n_s=n_{ik}+l_k-j_i-l_k)} \frac{(n_i+j_i+j_{sa}^{ik}-j_{ik}+s-1)!}{(n_i-n-1)! \cdot (n_i+j_{sa}^{ik}-j_{ik}+s)!} \cdot \frac{(l_s+l_k-1)!}{(l_s-l_k+1)! \cdot (j_s-2)!} \cdot \frac{(D-l_i)!}{(D+j_s-n-l_i)! \cdot (n-j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{ik} + 1 > l_s \wedge l_{ik} + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D > n < n \wedge l_s - l_k \geq 0$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$\{j_{sa}^s, j_{sa}^{ik}, l_k, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s - 1$$

$$l_k = l_s = 1$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-k)}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i)!}{(n_s - j_i - n - l_i - j_i - k - 1)!} \cdot \\
 & \frac{(n_s - j_s - n - l_i - j_s - 1)! \cdot (j_s - 2)!}{(l_{i_k} - j_{i_k} - j_{s_a} + 1)!} \cdot \\
 & \frac{(n_s + l_{i_k} - j_{i_k} - j_s)! \cdot (j_{i_k} - j_s - j_{s_a} + 1)!}{(D - l_i)!} + \\
 & \frac{(D + j_i - n - l_i)! \cdot (n - j_i)!}{\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{i_k}=j_i+l_{i_k}-l_i} \sum_{(j_i=l_s+s-k+1)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!}
 \end{aligned}$$

GÜLDÜSÜZ

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - 1)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
 & \frac{(l_i - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{j_{ik}=D+l_s+s}^{D-n+1} \sum_{j_s=l_s+n-D}^{l_i+k+1} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{j_i=l_i+n-D}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜMNA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots)}$$

$$\sum_{(j_i=j_i+l_{ik}, \dots)}$$

$$\sum_{(n+l_k, \dots)}$$

$$\sum_{(n_i+l_s+j_s-j_{ik}, \dots)}$$

$$\frac{(n_i + j_i + j_s - j_{ik} - 2 \cdot s - I)!}{(n_i - l_i - I)! \cdot (n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} = j_i + j_s - s \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_i \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} &= \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(n-j_s+1)} \\
 &\sum_{n_i=n+l_{ik}}^n \sum_{(n_i+j_s+1)}^{(n+l_i+j_s+1)} \\
 &\sum_{j_{ik}}^{n_i+j_{sa}^{ik}} \sum_{(j_{ik}+1)}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \\
 &\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 &\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 &\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 &\sum_{j_{ik}=l_s+j_{sa}^{ik}-k-s+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(n-j_s+1)}
 \end{aligned}$$

GÜLDÜMÜSÜ

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-k-s+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot
 \end{aligned}$$

GÜLDÜSÜZ

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=0}^{l_s + s - n - l_i} (j_s = j_{ik} - j_{sa}^{ik} + 1) \cdot \sum_{i=0}^{l_s - j_{sa}^{ik} - k} \binom{()}{i + n + j_{sa}^{ik} - D - s} (j_i = j_{ik} + l_i - l_{ik}) \cdot \sum_{n_i = n + lk}^n \sum_{(n_{is} = n + lk - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik}} \sum_{(n_s = n_{ik} + j_{ik} - j_i - lk)}^{()}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz \stackrel{DOSD}{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=0}^{l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_i=l_i+n-j_s)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)} \\
 & \sum_{(n+l_k)}^n \sum_{(n_{is}=n_{ik}+1)}^{(n_{is}+1)} \\
 & \sum_{(n+l_k-j_{ik})}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_{is}-1)! \cdot (n_{is}-n_{is}-j_s+1)!}{(n_{is}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \sum_{n_i = n + l_k}^n \sum_{(n_{i_s} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{i_k} = n + l_k - j_{i_k} + 1}^{n_{i_s} + j_s - j_{i_k}} \sum_{(n_s = n - j_i + 1)}^{(n_{i_k} + j_{i_k} - j_i - l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - j_i - n_{i_s} - 1)!}{(n_s - j_i - n_{i_s} - j_i - 1)!} \cdot \\
 & \frac{(n_{i_s} - j_s - n_{i_k} - 1)! \cdot (j_s - 2)!}{(n_{i_s} - j_s - n_{i_k} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!}{(n_{i_s} + l_{i_k} - j_{i_k} - j_{s_a}^{i_k})! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_s - k + 1)} \\
 & \sum_{j_{i_k} = j_s + j_{s_a}^{i_k} - 1} \sum_{(j_i = j_{i_k} + l_i - l_{i_k})}^{()} \\
 & \sum_{n_i = n + l_k}^n \sum_{(n_{i_s} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{i_k} = n_{i_s} + j_s - j_{i_k}} \sum_{(n_s = n_{i_k} + j_{i_k} - j_i - l_k)}^{()} \\
 & \frac{(n_i + j_i + j_{s_a}^{i_k} - j_{i_k} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{s_a}^{i_k} - j_{i_k} - 2 \cdot s)!}
 \end{aligned}$$

GÜLDÜSÜZ

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} S_{\Rightarrow j_s}^{DOSD} j_{ik} j_i &= \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \\ &\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-k)} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i - 1)!}{(D + j_i - n - l_i)! \cdot (j_i - 1)!} + \\
& \sum_{k=0}^{D+l_s+j_i-n-l_i} \sum_{l=0}^{(l_s-k+1)} \sum_{m=0}^{(l_i+n-D)} \\
& \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \sum_{(j_i=l_s+s-k+1)}^{(n_i-j_s+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
 & \sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}^{(n_{is}+1)} \\
 & \sum_{n+l_k-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-n_{is})}^{(n_{ik}+j_{ik}-j_i-n_{is}+1)} \\
 & \frac{(n_{is}-n_{is}-1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-k)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k})}^{(\)}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - I)!}{(n_i - n - I)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - I)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k - 1)! \cdot (k - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{ik} - s = l_{ik} \wedge$

$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge$

$s = \{j_{sa}^s, \dots, j_{sa}^{s-1}, j_{sa}^s\} \wedge$

$s = 3 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: Z = \dots \Rightarrow$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n+l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + l_s - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=\mathbf{n+l}_k}^n \sum_{(n_{is}=\mathbf{n+l}_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n+l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜMÜŞKA

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(D + j_s - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{j_i = l_{ik} + l_s + s - 1}^{D - n + 1} \sum_{j_s = l_s + n - D}^{(l_s - k + 1)} \binom{n_i - j_s + 1}{n_i = n + l_k} \binom{n_i - j_s + 1}{n_{is} = n + l_k - j_s + 1} \\
 & \sum_{n_{ik} = n + l_k - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{n_s = n - j_i + 1}^{(n_{ik} + j_{ik} - j_i - l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

GÜLDÜMÜN

A

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-k} \sum_{(j_{ik}=j_i+l_i-l_{ik})}^{()} \sum_{(n_i=j_i+1)}^{(n_i=j_i+1)} \sum_{(n+l_k)}^{(n+l_k)} \sum_{(n_{is}=n_{is}+1)}^{(n_{is}=n_{is}+1)} \sum_{(n_{ik}=j_i+j_s-j_{ik})}^{()} \sum_{(n_{ik}=j_i+j_s-j_{ik})}^{()} \frac{(n_i - n - l_i)! \cdot (n + j_i + j_{ik} - j_{ik} - 2 \cdot s - l)!}{(l_s - k - 1)! \cdot (l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > n - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} = j_i + j_{sa}^{ik} - s$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{ik} - j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D - n = l_s \wedge I = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, j_{sa}^{ik}, k, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{S_{DOSD}} = & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_{ik}+n-D-j_{sa}^{ik})} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k}^{n_i+j_s} \sum_{(n_{is}=n+k-j_s+1)}^{(n_{ik}+j_i-j_{ik})} \\
 & \sum_{(j_s=j_s-2)}^{(n_i-n_s-1)!} \frac{(n_i-n_s-1)!}{(j_s-2)! \cdot (n_i-n_s-j_s+1)!} \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_i-n_s-1)!}{(n_{ik}+j_{ik}-n_s-j_i)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - n - 1)!}{(n - j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜMÜKKA

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{j_s=1}^{D+l_s+s-n-l_i} \sum_{j_{ik}=j_s}^{(l_s-k+1)} \sum_{j_{sa}^{ik}=j_{ik}-j_s}^{(j_{ik}-j_s-j_{sa}^{ik}+1)} \sum_{j_i=j_s+j_{sa}^{ik}-1}^{(n)} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(n_i-j_s+1)} \sum_{n_i=n+l_k}^n \sum_{(n_s=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(n_i-j_s+1)} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$n \leq l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z^{DOSD} \Rightarrow j_s, j_{ik}, j_i$$

$$\sum_{i=1}^{l-1} \sum_{(j_s=2)}^{(k+1)}$$

$$\sum_{(l_s+s-k)}^{(j_i+l_{ik}-l_i)} \sum_{(j_i=s+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

GÜLDÜNKYA

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-k+1)} \sum_{(j_i+s-k+1)}$$

$$\sum_{n+l_k}^n (n_{is}+1)$$

$$\sum_{n+l_k}^{n_{is}+j_s-j_{ik}} (n_{ik}+j_{ik}-j_i-1)$$

$$\sum_{n+l_k-j_{ik}}^{n_{is}+j_s-j_{ik}} (n_{is}-1)!$$

$$\frac{(n_{is}-2)! \cdot (n_{is}-j_s+1)!}{(n_{is}-1)!}$$

$$\frac{(n_{ik}-1)!}{(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=i}^{()} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-i^{l+1})} \sum_{(j_i=s)}$$

GÜLDENWALD

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - j_{sa} + 1)! \cdot (j_{ik} - j_{sa} - l_k)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{l-1} \sum_{(j_s=j_{ik}-j_{sa}^k+1)}^{(j_s)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=s+1)}^{(l_s+s-k)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(j_s)} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{l-1} \sum_{(j_s=1)}^{(j_s)}
 \end{aligned}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_{sa}^{ik}} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(D - l_i)}{(D + s - \mathbb{k} - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_s^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\}$$

$$s = 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_z: 2 \wedge 1 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n+l_k-j_{ik}+1}}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n-j_i+1})}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - n_i - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l_i - 1)!}{(j_s - l_i + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=\mathbf{l_s+j_{sa}^{ik}-k+1}}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})} \binom{(\quad)}{(\quad)} \\
 & \sum_{n_i=\mathbf{n+l_k}}^n \sum_{(n_{is}=\mathbf{n+l_k-j_s+1})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n+l_k-j_{ik}+1}}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n-j_i+1})}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
 \end{aligned}$$

GÜLDÜMÜŞKA

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{l_i + j_{sa}^{ik} - s + 1} \sum_{j_s=1}^{(j_s)} \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n-j_{ik}+1} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{i^{l-1}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s)}$$

GÜLDÜMNA

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i+j_i+j_{sa}^{ik}-j_{ik}-s)!}{(n_i-n-l)! \cdot (n+j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(l_s-l_k-1)!}{(l_s-l_k+1) \cdot (j_s-2)!} \\
 & \frac{(D-l_i)!}{(D+j_i+l_i-l)! \cdot (n-j_i)!} \\
 & \sum_{k=l}^{()} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j_i=s)}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s-l_k)!}{(n_i-n-l_k)! \cdot (n+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s)!} \\
 & \frac{(D-l_i)!}{(D+s-n-l_i)! \cdot (n-s)!}
 \end{aligned}$$

$$D \geq n < l_s \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, k, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

GÜLDÜMWA

$$fz \stackrel{DOSD}{\Rightarrow} i, j_{ik}, j_i \sum_{k=1}^{l-1} \sum_{j=0}^{n-k+1} \dots$$

$$\sum_{j_s=j_s+1}^{j_s+j_{sa}^{ik}-1} \sum_{j_i=l_{ik}}^{()} \dots$$

$$\sum_{n_i=n+k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+k-j_s+1)} \dots$$

$$\sum_{n_{ik}=n+k-j_{ik}+1}^{n_s-j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-k)}^{(n_s=n-j_i+1)} \dots$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=1}^{i-1} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{l_i+j_{sa}^{ik}-i^{l-s+1}} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n+l_k-j_i+1)}^{n_{ik}+j_{ik}-j_i-l_{ik}} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!} \cdot \\
 & \frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_i+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_{ik}-j_i-l_s-j_{sa}^{ik}+1)!}{(l_{ik}-j_i-l_s+1)! \cdot (j_{ik}-j_{sa}^{ik})!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
 & \sum_{k=1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s-1)!}{(n_i-n-1)! \cdot (n+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s)!}
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{(j_s)} \sum_{l_i=1}^{(j_s - k + 1)} \frac{\sum_{n_i=n+l_i}^n \sum_{j_s=j_s-k+1}^{(j_s)} \sum_{j_{ik}=j_i-l_i}^{(j_s - j_i - l_i)} (n_i - j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}{(n_i - n - l_i)! \cdot (n + j_i - j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

- $D \geq n < n \wedge l_s \leq D - n + 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{ik} = j_i + j_{sa}^{ik} - s$
- $j_i + s - j_{sa}^{ik} \leq j_i \leq n$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \leq l_i + j_{sa}^{ik} - s - j_{ik} \wedge$
- $D + s - n < l_i \leq D + j_i + s - n - 1 \wedge$
- $D \geq n < n \wedge l_s = k \geq 1 \wedge$
- $j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$
- $s: \{j_{sa}^s, \dots, j_{sa}^{ik}, k, j_{sa}^i\} \wedge$
- $s - j_{sa}^s = s + k \wedge$
- $k_z: z = 1 \Rightarrow$

$$fz \overset{DOSD}{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-k)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_s-n_s)!}{(j_i+l_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_i-1)!}{(n_s+n_j-i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_s+s-k+1)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - l_{ik} - k + 1)! \cdot (l_s - l_{ik} - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_{ik})!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{i=0}^{l_i} \sum_{j_s=2}^{(l_s-k+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-k+1)} \sum_{j_i=l_i+n-D}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

GÜLDÜZÜMÜ

A

$$\begin{aligned}
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_i=l_i+l_{ik}}^{()} \sum_{(j_i=l_i+n-D)}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_s+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{(n_i-j_i-k)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-k)} \sum_{(j_i=l_i+n-D)}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜNYA

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik}$

$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$

$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

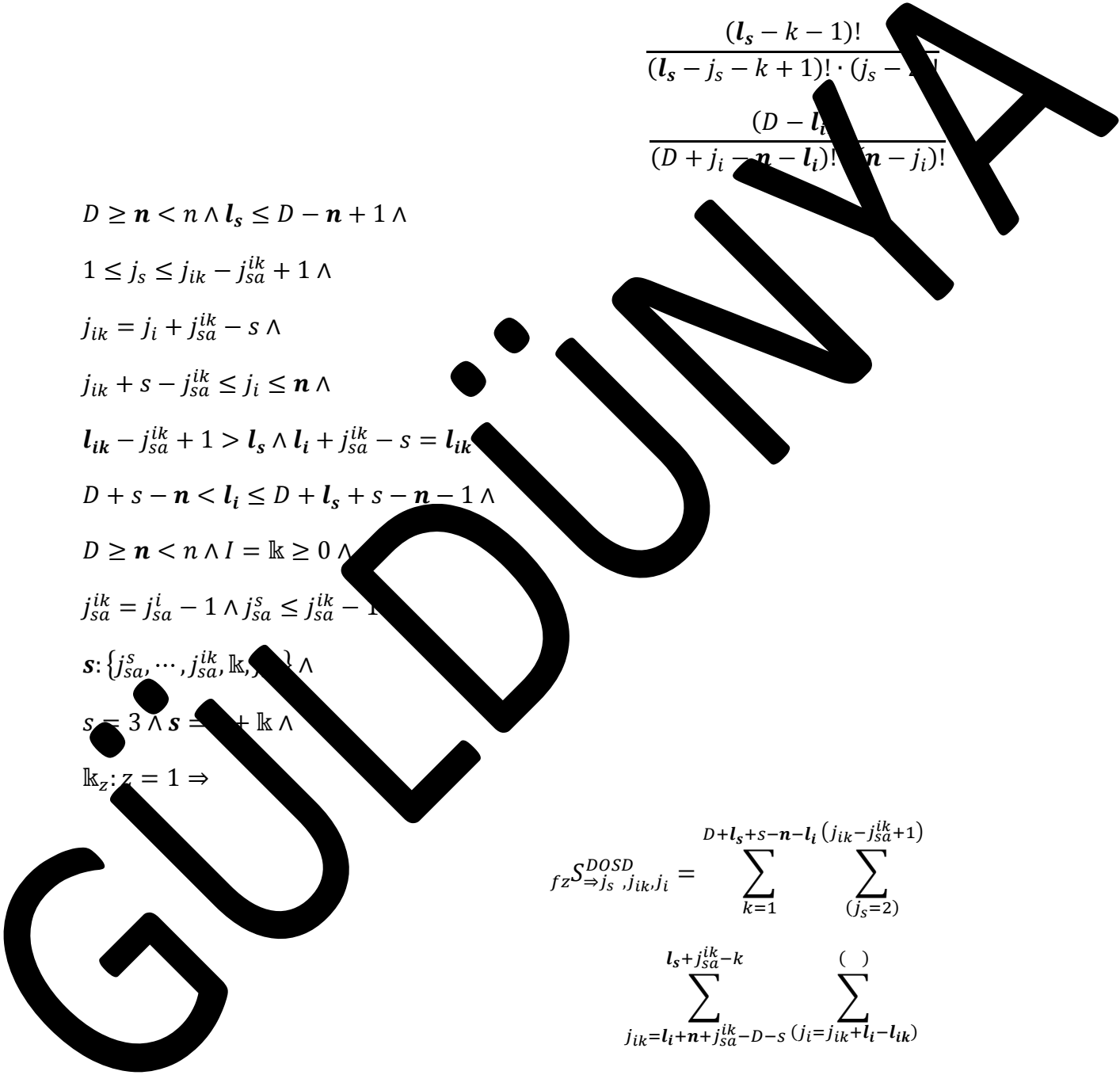
$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_i\} \wedge$

$s = 3 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$fz \overset{DOSD}{\Rightarrow} j_s, j_{ik}, j_i = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{\binom{()}{j_s=2}}^{j_{ik}-j_{sa}^{ik}+1} \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{\binom{()}{j_i=j_{ik}+l_i-l_{ik}}}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{is}=n+\mathbb{k}-j_s+1}}$$



$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \\
 & \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_{sa} + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + \dots - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-\mathbf{n}-l_i} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\dots)} \\
 & \sum_{n_i=\mathbf{n}+\mathbf{l}_k}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbf{l}_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜMÜŞKA

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i - 1)!}{(D + j_i - n - l_i)! \cdot (j_i - 1)!} + \\
 & \sum_{i=0}^{l_i - 1} \sum_{j_s=2}^{l_s - k + 1} \sum_{j_{ik}=l_i}^{l_i + j_{sa}^{ik} - 1} \sum_{j_{sa}^{ik}=D-s}^{j_{sa}^{ik} - D - s} \binom{l_i - k + 1}{j_s} \binom{l_i - j_s + 1}{n_i = n + k} \sum_{n_{is} = n + k - j_s + 1}^{n_{is} + j_s - j_{ik}} \sum_{n_s = n - j_i + 1}^{(n_{ik} + j_{ik} - j_i - k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

GÜLDÜMBA

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{l_i + j_{s_a}^{ik} - l_i - s + 1} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{s_a}^{ik}-D-s}^{()} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n_i-j_i-l_k)}^{(n_{ik}=n_i-j_i-l_k)} \\
 & \frac{(n_i - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_i - n_s - j_{ik} + 1)!} \cdot \\
 & \frac{(n_i - n_s - 1)!}{(j_i - j_s - 1)! \cdot (n_i - n_s - j_{ik} + 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s - j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - j_{ik} - l_s - j_{s_a}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{s_a}^{ik})!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{s_a}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{s_a}^{ik}-D-s}^{l_s+j_{s_a}^{ik}-k} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()}
 \end{aligned}$$

GÜLDÜZYA

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{S_{DOSD}} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(l_i - l_j)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D-s-n-l_i} \sum_{j_s=l_i+n-D-s+1}^{j_s=l_i+n-D-s+1} \\
 & \sum_{i_k=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(j_i=j_{ik}+l_i-l_{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜMNA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_i+n_{is}-j_{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \dots$$

$$\sum_{n_{is}=n+l_k-j_{ik}}^{(n_i-j_s+1)} \sum_{(n_{ik}=n-j_i-l_k)} \dots$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=i}^{()} \sum_{(j_s=1)}^{()}$$

GÜLDÜMWA

$$\begin{aligned}
 & \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_i + j_{sa}^{ik} - l_i - s + 1} \binom{(\quad)}{\quad} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{ik} = n + k - j_{ik} + 1)}^{(n_i - j_{ik} + 1)} \sum_{n_s = n - j_i}^{n_{ik} + j_{ik} - j_i - k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_{ik} - l_s - j_{ik} - 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=1}^{D + j_i - s - n - l_i} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_s - k + 1)} \binom{(\quad)}{\quad} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \binom{(\quad)}{\quad} (j_i = j_{ik} + l_i - l_{ik}) \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik}} \binom{(\quad)}{\quad} (n_s = n_{ik} + j_{ik} - j_i - k) \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - I)!}{(n_i - n - I)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

GÜLDÜZÜM

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=1}^{D+l_s} \sum_{(j_s=2)}^{n-l_i(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-k)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}
 \end{aligned}$$

GÜLDÜNKYA

$$\begin{aligned}
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n+l_i+l_s-k+1} \sum_{j_s=2}^{(l_s-k+1)} \\
 & \sum_{j_i=l_i+l_{ik}-l_i}^{(l_{ik}+j_s-1)} \sum_{j_s=l_s+s-k+1}^{(j_s+1)} \\
 & \sum_{n_{ik}=n+l_k}^{(n_{is}=n+l_k-j_s+1)} \sum_{n_{ik}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \sum_{n_{ik}+l_k-j_{ik}+1}^{(n_s=n-j_i+1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
 \end{aligned}$$

GÜLDÜNYA

$$\sum_{k=D+l_s+s-n-l_i+1}^{l-1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-)}^{(l_{ik}+s-k-j_{sa}^k+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_i-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_i-1} \sum_{(n_s=n-j_i+l_{ik})}^{(n_{is}+j_s-j_{ik}+j_{ik}-j_i-l_k)}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{is}-n_s-1)!}{(n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^k+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^k+1)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

$$\sum_{k=1}^{()} \sum_{(j_s=1)}^{()} l$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^k)}^{(l_{ik}+s-l-j_{sa}^k+1)}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(l_{ik} - j_{ik} - j_{sa} + 1)! \cdot (j_{ik} - j_{sa} - l_k)!} \cdot \\
 & \frac{(D - l_i - 1)!}{(D - j_i - n - l_i - 1)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_i-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-k)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}}^{(j_s-j_{ik}+1)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(j_s-j_{ik}+1)} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=1}^{D+s-n-j_{ik}-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{l_{ik}=n-D}^{l_s+j_{sa}^{ik}} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(j_i=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$D + l_s + s - n - l_i \quad (l_s - k + 1)$$

$$\sum_{k=1} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s+l_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_{ik}=l_s+l_{sa}^{ik}-k+1)}^{(n_i-j_s+1)}$$

$$(n_i - j_s + 1)$$

$$\sum_{n+l_k}^{(n_i - j_s + 1)}$$

$$\sum_{(n_i - j_s + 1)}$$

$$\sum_{(n_i - j_s + 1)}$$

$$\sum_{(n_i - j_s + 1)}$$

$$\sum_{(n_i - j_s + 1)}$$

$$\sum_{(n_i - j_s + 1)}$$

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$$\sum_{(n_i - j_s + 1)}$$

$$\sum_{(n_i - j_s + 1)}$$

GÜLDÜZYA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$i - 1 \quad (l_s - k + 1)$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_s - n_s)!}{(j_i - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - j_i - n - 1)! \cdot (n - j_i)!}{(n_s - j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s - l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=i}^{()} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

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$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_s - j_i - l_{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=0}^{D+l_s+s} \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_{ik}-k} \sum_{j_{ik}=j_{ik}+n-D}^{j_{ik}-k+n-D} \sum_{n_i=n+l_k}^{n_i=n+l_k} \sum_{n_s=n+l_k-j_s+1}^{n_i-j_s+1} \sum_{n_{ik}=n_i+j_s-j_{ik}}^{n_s=n_{ik}+j_{ik}-j_i-l_k} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D + n - l_s \leq l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j_i + j_{sa}^{ik} - s \leq j_{ik} \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fzS_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=0}^{D+l_s+s-n-l_i} \sum_{(j_s-2)}^{(n-D-j_{sa}^{ik})} \sum_{i_{ik}=l_{ik}+n-k+1}^{i_{ik}=j_{ik}+l_i-l_{ik}} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{n_{is}=n_{ik}+j_s+1} \sum_{n_{ik}+\mathbb{k}-j_{ik}+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}} \sum_{(n_s=n-j_i+1)}^{(n_i-n_{is}-1)!} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\begin{aligned}
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-l_k)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \sum_{n_{ik}=n+l_k}^{n_{ik}+j_s-j_{ik}+1} \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜZYAN

$$\begin{aligned}
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{()} \sum_{l}^{()} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_i+l_i-l_{ik})} \sum_{(n_i=j_i+1)}^{(n_i+l_i+1)} \sum_{(n+l_k)}^{(n+l_k+1)} \sum_{(n_{ik}=n+l_k+1)}^{(n_{ik}+1)} \sum_{(n_{ik}+j_s-j_{ik})}^{(n_{ik}+j_s-j_{ik}-j_i-l_k)} \frac{(n_i+l_i+j_{sa}^{ik}-2 \cdot s-1)!}{(n_i-n-1)! \cdot (n+l_i+l_k-j_{ik}-2 \cdot s)!} \cdot \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > n - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s + j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{ik} - j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D - n = l_s \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{S_{DOSD}} = & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_i+n-1)}^{(n-j_s+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k-1}^{(n_{ik}+j_i-j_{ik})} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_i-j_{ik})} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{ik} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - k - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-k+1)} \sum_{(j_i=l_s+s-k+1)}^{(n-j_s+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - \mathbf{l}_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbf{l}_k)!} \\
 & \frac{(n_s - \dots)}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \\
 & \frac{(l_s - \dots - 1)!}{\dots + 1) \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + \dots - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 & \sum_{k=D+l_s+s-\mathbf{n}-l_i+1}^{D-\mathbf{n}+1} \sum_{(j_s=l_s+\mathbf{n}-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+\mathbf{n}-D)}^{(l_i-k+1)} \\
 & \sum_{n_i=\mathbf{n}+\mathbf{l}_k}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbf{l}_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{D+l_s+s-j_i} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(j_{ik} - j_s - j_{sa}^{ik} + 1)} \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{j_i=l_i+n-D}^{(n_i-j_s+1)} \sum_{n_i=n+k}^n \sum_{(n_s=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_i+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k)}^{(j_{ik} - j_s - j_{sa}^{ik} + 1)} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$n - j_s \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$fz \stackrel{DOSD}{S \Rightarrow j_s, j_{ik}, j_i} = \binom{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1}{j_{sa}^{ik}+1} \binom{j_{sa}^{ik}+1}{j_s=l_s} \binom{l_s+s-k}{n-D} \binom{n_i-j_s+1}{n_i=n+k} \binom{n_i-j_s+1}{n_{is}=n+k-j_s+1} \binom{j_s-j_{ik}}{n_{ik}=n+k-j_{ik}+1} \binom{n_{ik}+j_{ik}-j_i-k}{n_s=n-j_i+1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \sum_{(j_i=l_s+s-k+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}}^{n_i+j_s-j_{ik}} \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_s+1}^{(n_i-j_s+1)} \sum_{(n_s=n-j_i+l_k)}^{(n_i-j_s+1)} \\
 & \frac{(n_s - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - l_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - l_k - 1)! \cdot (l_k + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \left(\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) + \\
 & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 & \left. \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_i+n-D)}^{(l_s+s-k)} \right)
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i)!}{(n_s - j_i - n - l_i - j_i - k - 1)!} \cdot \\
 & \frac{(n - j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(n - j_s - n - l_i - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_s+s-k+1)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

GÜLDÜŞMÜŞ

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - l_{ik} - k + 1)! \cdot (l_s - k - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=l_{ik}+s-k-j_{sa}^{ik}+2)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}
 \end{aligned}$$

GUIDE

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$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - l_{ik} - s)!} \cdot \\
 & \frac{(D - n + 1)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!} + \\
 & \sum_{k=D+l_{ik}}^{D-n+1} \sum_{j_{sa}^{ik}=n-l_i-j_s}^{(l_s-k+1)} \sum_{j_{ik}=l_{ik}+n-D}^{(l_i-k+1)} \sum_{j_i=l_i+n-D}^{(n-j_s+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

GÜLDÜNYA

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{(j_s=j_i+j_{sa}^{ik}-s)}$$

$$\sum_{(n_i-j_s+1)}$$

$$\sum_{n_{ik}+j_s-j_{ik}=n_{ik}+j_{ik}-j_i-k}$$

$$\frac{(n_i + j_i + j_s - j_{ik} - 2 \cdot s - I)!}{(n_i - n - I)! \cdot (n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + I$$

$$2 \leq j_s = j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - j_s = j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + s > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D > n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$\begin{aligned}
 f_{z \Rightarrow j_s}^{DOSD} j_{ik} j_i &= \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n-j_s+1)} \\
 &\sum_{n_i=n+l_s}^n \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \\
 &\sum_{j_{ik}}^{n_{ik}+j_{ik}-j_{sa}^{ik}} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik})} \\
 &\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{is} - n_s - \mathbb{k} - 1)!}{(j_s + j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 &\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 &\sum_{j_{ik}=l_s+j_{sa}^{ik}-k-s+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n-j_s+1)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{i_s} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)!} \cdot \\
 & \frac{(j_s - n - l_k - 1)!}{(j_s - n - l_k - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot
 \end{aligned}$$

GÜLDEN

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$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=0}^{l_s + s - n - l_i} (j_s = j_{ik} - j_{sa}^{ik} + 1)$$

$$\sum_{i=0}^{l_s} \sum_{j=0}^{j_{sa}^{ik} - k} \binom{()}{i+n+j_{sa}^{ik} - D - s} (j_i = j_{ik} + s - j_{sa}^{ik})$$

$$\sum_{n_i = n+k}^n \sum_{(n_{is} = n+k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik}} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k)}^{()}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \binom{D+l_{ik}+s-j_{sa}^{ik}-l_i-j_{sa}^{ik}+1}{\sum_{k=1}^{D+l_{ik}+s-j_{sa}^{ik}-l_i-j_{sa}^{ik}+1}} \binom{j_i+1}{\sum_{j_s=l_s+n-D}^{j_i+1}}$$

$$\binom{j_{sa}^{ik}-k}{\sum_{j_i=l_i+n+j_{sa}^{ik}-s}^{j_{sa}^{ik}-k}} \binom{j_i}{\sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{j_i}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=l_s+s-j_{sa}^{ik})}^{(n)} \\
 & \frac{(n_{is}+1)!}{(n+l_k)(n_{is}=n+l_k+1)} \\
 & \frac{(n_{ik}+j_{ik}-j_i-1)!}{(n+l_k-j_{ik})(n_{is}=n+l_k+1)} \\
 & \frac{(n_{is}-1)!}{(n+l_k-j_{ik})(n_{is}=n+l_k+1)} \\
 & \frac{(n_{is}+j_s-1)!}{(n+l_k-j_{ik})(n_{is}=n+l_k+1)} \\
 & \frac{(n_{ik}+j_{ik}-j_i-1)!}{(n+l_k-j_{ik})(n_{is}=n+l_k+1)} \\
 & \frac{(n_{is}+j_s-1)!}{(n+l_k-j_{ik})(n_{is}=n+l_k+1)} \\
 & \frac{(n_{ik}-n_s-l_k-1)!}{(j_i+l_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_k)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \left. \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \right) \\
 & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 & \left. \sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \right)
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
& \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{i_s} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
& \frac{(n_s - j_i - n - l_i - j_i - 1)!}{(n_s - j_i - n - l_i - j_i - 1)!} \cdot \\
& \frac{(j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(j_s - n - l_i - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_i + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_i + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik}+1)}^{(l_i-k+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}
\end{aligned}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_{sa} - k + 1)! \cdot (j_{sa} - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^k - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik}+1)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}
 \end{aligned}$$

GÜLDÜZ

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - l_{ik} - s)!} \cdot \\
& \frac{(D - n + 1)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!} + \\
& \sum_{k=D+l_{ik}}^{D-n+1} \sum_{j_i=l_i+n-D}^{l_s-k+1} \sum_{j_{ik}=l_{ik}+n-D}^{(l_s-k+1)} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \binom{()}{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n}^{l_s+j_{sa}^{ik}-k} \binom{()}{(j_i=j_{ik}-j_{sa}^{ik})}$$

$$\sum_{n_{ik}=n}^{(n_i-j_s+1)} \binom{()}{(n_{ik}+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n}^{(n_i-j_s+1)} \binom{()}{(n_{ik}+l_k-j_s+1)}$$

$$\frac{(n_i + j_i + j_s^i - j_{ik} - 2 \cdot s - I)!}{(D + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > -n +$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - s \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + s > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$\begin{aligned}
 f_z^{\mathcal{S} \Rightarrow j_s, j_{ik}, j_i} &= \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_i+n-D-s)} \\
 &\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(j_s+1)} \\
 &\sum_{n_i=n+l_i+j_{sa}^{ik}-k-s+1}^n \sum_{(n_{ik}=n+l_i+j_{sa}^{ik}-k-s+1)}^{(j_s+1)} \\
 &\sum_{n_{is}=n+l_i+j_{sa}^{ik}-k-s+1}^{n_i} \sum_{(n_{ik}+j_{ik}-n_{is})}^{(n_{ik}+j_{ik}-\mathbb{k})} \\
 &\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik})!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - l_k - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(n - j_s - n - l_k - 1)!}{(n - j_s - n - l_k - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!}{(j_{i_k} + l_{i_k} - j_{i_k} - j_{s_a}^{i_k})! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{i_k}=l_i+n+j_{s_a}^{i_k}-D-s}^{l_i+j_{s_a}^{i_k}-k-s+1} \sum_{(j_i=j_{i_k}+s-j_{s_a}^{i_k})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - l_i - j_i - 1)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!} \cdot \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{D-s-n-l_i} \sum_{j_s=l_i+n-D-s+1}^{(1)} \sum_{k=j_s+j_{sa}^{ik}-1} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{()} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}^{()} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{SDSD} = \binom{D+l_{ik}+s-l_i-j_{sa}^{ik}+1}{\sum_{k=1}^{D+l_{ik}+s-l_i-j_{sa}^{ik}+1}} \binom{n-s}{\sum_{j_s=l_s+n-D}^{n-s}}$$

$$\binom{l_{ik}-k}{\sum_{j_{ik}=l_i+n+j_s-D-s}^{l_{ik}-k}} \binom{j_i}{\sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{j_i}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

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$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=l_i+n-D-s+1)}^{(n - j_i + 1)} \\
 & \sum_{(n+l_k - n_{is} - 1)}^{(n_{ik} + j_{ik} - j_i - 1)} \sum_{(n_{ik} + j_{ik} - j_i - 1)}^{(n_{ik} + j_{ik} - j_i - 1)} \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_i+n-D-s)}^{(l_i+n-D-s)} \right. \right. \\
 & \left. \left. \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \right) \right)
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - l_k - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i)!}{(n_s - j_i - n - l_i - j_i - k - 1)!} \cdot \\
 & \frac{(n - j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!} \cdot \\
 & \frac{(j_i + l_{i_k} - j_{i_k} - j_{s_a}^{i_k})! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!}{(l_i + j_{s_a}^{i_k} - l_{i_k} - s)!} \cdot \\
 & \frac{(j_i + l_i - j_i - l_{i_k})! \cdot (j_i + j_{s_a}^{i_k} - j_{i_k} - s)!}{(D - l_i)!} + \\
 & \frac{(D + j_i - n - l_i)! \cdot (n - j_i)!}{\sum_{k=1}^{D+l_{i_k}+s-n-l_i-j_{s_a}^{i_k}+1} \sum_{(j_s=l_s+n-D)}^{(l_i+n-D-s)} \\
 & \sum_{j_{i_k}=l_{i_k}+n-D}^{l_{i_k}-k+1} \sum_{(j_i=l_{i_k}+s-k-j_{s_a}^{i_k}+2)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_{sa} - k + 1)! \cdot (l_s - j_{sa} - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^k - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{l_{ik} - j_{sa}^{ik} + 1} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_s - k + 1)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{l_{ik} - k + 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik} + 1)}^{(l_i - k + 1)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}
\end{aligned}$$

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - l_{ik} - s)!} \cdot \\
 & \frac{(D - j_i - 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_i}^{D-n+1} \sum_{j_{sa}^{ik}=n-l_i-j_s}^{(l_s-k+1)} \sum_{j_{ik}=l_{ik}+n-D}^{(l_i-k+1)} \sum_{j_i=l_i+n-D}^{(n_i-j_s+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \dots$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$
 $2 \leq j_s < j_{ik} - j_{sa}^{ik} + 1$
 $j_{ik} = j_i + j_s - s \wedge$
 $j_{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge$
 $l_{ik} - j_{sa}^{ik} + j_s > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$
 $D > n \wedge I = \mathbb{k} > 0 \wedge$
 $j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$
 $s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$
 $s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$\begin{aligned}
 f_{z \Rightarrow j_s}^{DOSD} j_{ik} j_i &= \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(n-j_s+1)} \\
 &\sum_{n_i=n+1}^n \sum_{(n_i+j_{sa}^{ik})}^{(n+j_s+1)} \\
 &\sum_{n_{is}=j_{sa}^{ik}}^{(n_{ik}+j_{ik}-n_{is})} \sum_{(j_{ik}-j_i+1)}^{(n-j_i+1)} \\
 &\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik})}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 &\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 &\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 &\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \sum_{(j_i=l_s+s-k+1)}
 \end{aligned}$$

GÜLDÜMÜŞA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{i_s} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(j_s - j_s - n - 1)! \cdot (j_s - 2)!}{(l_{ik} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot
 \end{aligned}$$

GÜLDÜSÜZ

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!} \cdot$$

$$\frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=0}^{l_s + s - n - l_i} (j_s = j_{ik} - j_{sa}^{ik} + 1)$$

$$\sum_{j_{sa}^{ik} = s}^{l_s + s - k} (j_i = l_{ik} + n + s - D - j_{sa}^{ik})$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik}} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k)}^{()}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz \overset{DOSD}{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{l_s+s-n-l_i} \sum_{j_s=l_s+n-D}^{(j_s+1)} \sum_{j_{ik}=l_{ik}+n-D}^{(j_{ik}+1)} \sum_{j_i=l_i+n-D}^{(j_i+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

GÜLDÜNKYA

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{(n_{is}=n_{ik}+j_{ik}-j_i-1)}^n \sum_{(n_{ik}+j_{ik}-j_i-1)}^{(n_{ik}+1)} \\
 & \sum_{(n_{ik}-j_s-1)}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}-j_i-1)}^{(n_{ik}+j_{ik}-j_i-1)} \\
 & \frac{(n_{is}-1)! \cdot (n_{is}-j_s+1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{ik}-1)!}{(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-k-1)!}{(j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-k)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}
 \end{aligned}$$

GÜLDÜMÜYA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(n - j_s - n - l_k - 1)!}{(n - j_s - n - l_k - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_i + l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}
 \end{aligned}$$

GÜLDÜSÜZ

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

GÜLDÜNKYA

$$\begin{aligned}
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(n - l_i)!}{(D + j_i - n - l_i)! \cdot (j_i)!} + \\
& \sum_{i=1}^{D+l_s+s-n-l_i} \sum_{j=1}^{(l_s-k+1)} \sum_{k=1}^{(j_s - j_{ik} - j_{sa}^{ik} + 1)} \sum_{l_{ik}=j_s+j_{sa}^{ik}-1}^{(n - j_s + 1)} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{(n - j_s + 1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{i=n+l_k}^n \sum_{(n_{is}=n_{is}+1)}^{(n_{is}+1)} \\
 & \sum_{i=n+l_k-j_s}^{n_{is}+j_s-j_s} \sum_{(n_{ik}+j_{ik}-j_i)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_{is}-1)! \cdot (n_{is}-j_s+1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{ik}-1)!}{(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-k-1)!}{(j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-k)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}
 \end{aligned}$$

GÜLDÜZYA

$$\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(\quad)}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k - 1)! \cdot (k - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{ik} - s = l_{ik} \wedge$

$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$

$D \geq n < n \wedge l = \dots > 0 \wedge$

$j_{ik} < j_{sa}^l - 1 \wedge j_{sa}^s \leq j_{sa}^{l-1} - 1 \wedge$

$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, j_{sa}^{i-1}\} \wedge$

$s > 3 \wedge \dots = s + l_k \wedge$

$l_{k_z}: z = 1 \Rightarrow$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+1)}^{(l_s+s-k)}$$

$$\begin{aligned}
 & \sum_{n_i = n + l_k}^n \sum_{(n_{is} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + l_k - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(n - j_s - n - l_k - 1)!}{(n - j_s - n - l_k - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{is} + l_{ik} - j_{sa}^{ik} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s = 2)}^{(l_s - k + 1)} \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_i - k + 1)} \sum_{(j_i = l_s + s - k + 1)} \\
 & \sum_{n_i = n + l_k}^n \sum_{(n_{is} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + l_k - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{j_i=1}^{(n)} \sum_{j_s=1}^{(n)} \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-j_{i+1})} \sum_{j_i=s}^{(n)} \sum_{n_i=n+k}^{(n)} \sum_{(n_{ik}=n+k-j_{ik}+1)}^{(n-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-k)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{i-1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(n)}$$

GÜLDÜMNA

$$\begin{aligned}
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+1)}^{(l_s+s-k)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(\quad)} \\
 & \frac{(n_i+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s-1)!}{(n_i-n-1)! \cdot (n_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(l_s-l_k-1)!}{(l_s-l_k+1)! \cdot (j_s-2)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
 & \sum_{k=i}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{(\quad)} \sum_{(j_i=s)}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{(\quad)} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s-l_k)!}{(n_i-n-l_k)! \cdot (n_i+j_{sa}^{ik}-j_{ik}-2 \cdot s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+s-n-l_i)! \cdot (n-s)!}
 \end{aligned}$$

$$(D \geq n-l_i) \wedge l_s \leq D-n+1 \wedge$$

$$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge$$

$$j_{ik}=j_i+j_{sa}^{ik}-s \wedge$$

$$j_{ik}+s-j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik}-j_{sa}^{ik}+1 > l_s \wedge l_i+j_{sa}^{ik}-s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i}^{DQSD} = \left(\sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=s+1)}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \right)$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
& \frac{(l_s + l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{l_s - k + 1} \sum_{(j_s=2)}^{l_s - k + 1} \\
& \sum_{(j_{ik}=j_i + j_{s_a}^{ik} - s)}^{l_{ik} + s - k - j_{s_a}^{ik} + 1} \sum_{(j_i=l_s + s - k + 1)}^{l_{ik} + s - k - j_{s_a}^{ik} + 1} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i-1} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_i - j_{ik-s}}^{(l_{ik+s} - j_{sa}^{ik} + 1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_{i_s}=n+l_k}^{(n_i - j_{ik})} \sum_{n - j_i + 1}^{n_{ik} + j_{ik} - j_i}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_{ik} - 2)! \cdot (n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - k - 1)! \cdot (k + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\left(\sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(j_{ik} - j_{sa}^{ik} + 1)} \right)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i + j_{sa}^{ik} - s - 1} \sum_{(j_i=s+2)}^{(l_s + s - k)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k - j_s + 1)}^{(n_i - j_s + 1)}$$

GÜLDENYA

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_i)!} \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_i - l_s)! \cdot (j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} - j_i - l_i)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 & \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 & \sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_s+s-k+1)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}
 \end{aligned}$$

GÜLDÜMÜŞKA

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{ik} - l_i - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{i-1} \sum_{j_s=2}^{l_s-k+1} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-k+1} \sum_{(j_i=l_{ik}+s-k-j_{sa}^{ik}+2)}^{(l_i-k+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{i-1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{(j_{ik}=j_{ik}+s-j_{sa}^{ik}+1)}$$

$$\sum_{(j_i=j_{ik}+s-j_{sa}^{ik}+1)}$$

$$\sum_{n=n+l_k}^n \sum_{(n_i-j_{ik}+l_k)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - l_k - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{i-1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

GÜLDÜZMAYA

$$\begin{aligned}
& \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+1)}^{(l_s+s-k)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_i+j_s-j_{ik}} \sum_{(n_s=n_{ik}-j_i-l_k)}^{(\quad)} \\
& \frac{(n_i+j_i+j_{sa}^{ik}-j_{ik}-s-1)!}{(n_i-n-l)! \cdot (n+j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
& \frac{(l_s-l_k-1)!}{(l_s-l_k+1) \cdot (j_s-2)!} \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
& \sum_{k=i}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \\
& \sum_{j_{ik}=j_{sa}^{ik}}^{(\quad)} \sum_{(j_i=s)}^{(\quad)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{(\quad)} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k} \\
& \frac{(n_i+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s-l_k)!}{(n_i-n-l_k)! \cdot (n+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s)!} \cdot \\
& \frac{(D-l_i)!}{(D+s-n-l_i)! \cdot (n-s)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_i}^{DOSD} = \sum_{k=1}^{i-1} \binom{j_{sa}^{ik}+1}{j_s} \cdot \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}} \binom{l_s+j_{sa}^{ik}}{j_{ik}-j_{sa}^{ik}} \cdot \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \binom{n_i-j_s+1}{n_i=n+\mathbb{k}} \cdot \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \binom{n_{ik}+j_{ik}-j_i-\mathbb{k}}{n_s=n-j_i+1} \cdot \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

GÜLDÜNYA

$$\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s + j_{sa}^{lk} - k + 1}^{l_i + j_{sa}^{lk} - k - s + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{lk})}^{()}$$

$$\sum_{n_i=n+lk}^n \sum_{(n_{is}=n_i - k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n+lk-j_s+1}^{n_{is} + j_s - j_{ik}} \sum_{(n_s=n-j_i+l_k)}^{n_{is} + j_s - j_{ik} + j_{sa}^{lk} - j_i - l_k}$$

$$\frac{(n - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - l_k - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - j_s - l_k - 1)!}{(j_i - j_s - 1)! \cdot (l_k + j_{ik} - n_s - j_i - l_k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{lk} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{lk} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=i}^l \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{lk}}^{l_i + j_{sa}^{lk} - l - s + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{lk})}^{()}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_i - l_s - j_{sa} - 1)!}{(l_{ik} - j_{ik} - l_s - 1)! \cdot (j_{ik} - l_k)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{l_i-1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s+j_{sa}^{ik}-k)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{ik}+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(j_i-j_s+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(j_s-1)} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l_i)!}{(n_i - n - l_i)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l_i}^{(j_s-1)} \sum_{(j_s=1)}^{(j_s-1)}
 \end{aligned}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_{sa}^{ik}} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(D - l_i)}{(D + s - l_i - \mathbb{k})! \cdot (n - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_i \leq D + s - n) \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \left(\sum_{k=1}^{i^{l-1} (j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{l_s + j_{sa}^{ik} - k} \right)$$

$$\sum_{j_{sa}^{ik}+1}^{j_{sa}^{ik}} \sum_{(j_{sa}^{ik})}^{(n_i - j_s + 1)}$$

$$\sum_{(n_{ik} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{(n_{ik} - j_i - \mathbb{k})}^{(n_i - j_s + 1)}$$

$$\sum_{(n_s = n - j_i + 1)}^{(n_i - j_s + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}$$

GÜLDÜZMAYA

GÜLDENWA

$$\begin{aligned}
 & \sum_{j_{ik}=l_s+j_{sa}^{lk}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_{sa}^{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s) \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-l_k-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_k)!} \cdot \frac{(n-1)!}{(n_s) \cdot (j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{lk}+1)!}{(j_{ik}-l_{ik}-j_{sa}^{lk})! \cdot (j_{ik}-j_s-j_{sa}^{lk}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \sum_{k=i}^l \sum_{(j_s=1)}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!}
 \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \left(\sum_{k=1}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{(j_s=2)}^{j_{ik} - j_{sa}^{ik} + 1} \right) \\
& \sum_{l_s=1}^{j_{ik} - j_{sa}^{ik} + 1} \sum_{j_{ik}=j_{sa}^{ik} + 1}^{j_{ik} - j_{sa}^{ik} + 1} (j_i = j_{ik} + s - j_{sa}^{ik} + 1) \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_s+j_{ik}^{k-1}}^{l_{ik}-k+1} \frac{(l_i - j_i + 1)!}{(j_i - j_{ik} + 1)!}$$

$$\sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}+k-j_s+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

GÜLDÜNYA

$$\begin{aligned}
 & \sum_{k=1}^{i-1} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-i+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-1)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - 1)!} \cdot \\
 & \frac{(n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_i - 1 - j_i - l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_i - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_i - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) - \\
 & \sum_{k=1}^{i-1} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()}
 \end{aligned}$$

GÜLDÜMÜYA

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i - l_i)!}$$

$$\sum_{k=1}^{(j_s)} \binom{(\cdot)}{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \binom{(\cdot)}{(j_i=s)}$$

$$\sum_{n_i=n+1}^n \sum_{j_{ik}=n_i-j_{sa}^{ik}-1} \binom{(\cdot)}{(j_i=s)} \sum_{n_s=n_{ik}+j_{ik}-j_i-k}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - k)!}{(n_i - n - k)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s = D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \geq l_s \wedge l_i - j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$fz_{S \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s + j_{sa}^{ik} - 1}^{l_i + j_{sa}^{ik} - k - s + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n+l_k - j_s + 1}^{n_{is} + j_s - j_{ik} - 1} \sum_{(n_s=n - j_i + j_{sa}^{ik} - j_{ik})}^{n_{is} + j_s - j_{ik} - 1 + j_{sa}^{ik} - j_i - l_k}$$

$$\frac{(n - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - j_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - j_s - l_k - 1)!}{(j_i - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^i \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_i + j_{sa}^{ik} - i^{l-s} + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik})}^{()}$$

GÜLDÜZYAN

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa})!}{(l_{ik} - j_{ik} - 1)! \cdot (j_{ik} - 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^i \sum_{(j_s=1)}^{()}
 \end{aligned}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)} \sum_{n_s=n_{ik}+j_{ik}-j_{sa}^{ik}} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - k)!}{(n_i - n - k)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(D - l_i)}{(D + s - l_i - 1)! \cdot (n - s)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l_i \leq D + s - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \left(\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2, \dots, j_{ik}^{ik}, j_i^i)} \dots \right)$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \dots \sum_{(n_i-j_s+1)} \dots \sum_{(n_i-n_{is}-1)!} \dots \sum_{(n_{is}-n_{ik}-1)!} \dots \sum_{(n_{ik}-n_s-\mathbb{k}-1)!} \dots \sum_{(n_s-1)!} \dots \sum_{(l_s-k-1)!} \dots \sum_{(j_s+l_{ik}-j_{ik}-l_s)!} \dots \sum_{(D-l_i)!} \dots$$

GÜLDÜNYA

$$\sum_{k=1}^{()} \sum_{i^l (j_s=1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i}^{n_{ik}+j_{ik}-j_i-\mathbb{k}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{ik} - 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) + \\
 & \left(\sum_{k=1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \right) \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik}+1)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot
 \end{aligned}$$

GÜLDÜZÜM

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{j_s=1}^{()} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}+1}^{(l_i-l+1)} \sum_{n_i=n+l_k}^{l_{ik}-l+1} \sum_{n_{ik}=n+l_k-j_{ik}+1}^{i-j_{ik}+1} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \left. \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) -
 \end{aligned}$$

GÜLDÜNKYA

$$\begin{aligned}
 & \sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_s + j_{sa}^{ik} - 1} \sum_{(j_i=j_{ik} + s - j_s)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n_i - \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik}=n_{is} + j_s - j_s} \sum_{(n_s=n_{ik} + j_{ik} - j_i)} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - 1)! \cdot (n_i + j_i + j_{sa}^{ik} - 2 \cdot s)!} \cdot \\
 & \frac{(n_i - 1)! \cdot (n_i + j_i + j_{sa}^{ik} - 2 \cdot s)!}{(n_i - 1)! \cdot (n_i + j_i + j_{sa}^{ik} - 2 \cdot s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=1}^{i^l} \sum_{(j_s=1)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i - j_{ik} + 1)} \sum_{(n_s=n_{ik} + j_{ik} - j_i - \mathbb{k})} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 & \sum_{i=2}^{D+l_s} \sum_{j_i=l_i}^{n-l_i} (j_{ik} - j_{sa}^{ik} + 1) \\
 & \sum_{i=2}^{(l_s+s-k)} \sum_{j_i=l_i+n-D}^{j_{ik}=j_i+j_{sa}^s-s} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}
 \end{aligned}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i+l_s-k+1)}^{(l_i-k+1)} \\
 & \sum_{i=n+l_k}^n \sum_{(n_{is}=n_{ik}+1)}^{(n_{is}+1)} \\
 & \sum_{i=n+l_k}^{n_{is}+j_s-1} \sum_{(n_{ik}+j_{ik}-j_i-1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_{is}-1)! \cdot (n_{is}-j_s+1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{ik}-1)!}{(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-k-1)!}{(j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-k)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)}
 \end{aligned}$$

GÜLDÜMÜYA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(n - j_s - n - l_k - 1)!}{(n - j_s - n - l_k - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_i + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{()} \sum_{l_i}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l_i+1)} \sum_{(j_i=l_i+n-D)}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}
 \end{aligned}$$

GÜLDÜSÜZ

A

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \binom{(\quad)}{(j_s=j_{ik}+j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+j_s-k} \binom{(\quad)}{(j_i=l_i+n-D)}$$

$$\sum_{n_{ik}+k} \binom{(\quad)}{(n_{is}=n+k-j_s+1)}$$

$$\sum_{n_{ik}=n-j_s-j_{ik}} \binom{(\quad)}{(n_s=n_{ik}+j_{ik}-j_i-k)}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i + n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_i < j_{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} = j_i + j_s - s \wedge$$

$$+ s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_{ik}+s} \sum_{(j_s=2)}^{l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_i+n-D)}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\begin{aligned}
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=0}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}} \sum_{s=2}^{(l_s-k+1)} \\
 & \sum_{j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-1)} \sum_{=l_s+s-k+1} \\
 & \sum_{n_i}^{n_i} \sum_{(n_{is}=n+l_k-j_s+1)}^{(l_i-i+1)} \\
 & \sum_{n_i+l_k-j_{ik}+1}^{+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \sum_{(n_s=n-j_i+1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \Bigg) +
 \end{aligned}$$

GÜLDÜNYA

GÜLDENREINER

$$\begin{aligned}
 & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 & \quad \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_i+n)}^{(l_s+s-k)} \\
 & \quad \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_i-j_s+1)}^{(n_i-j_s+1)} \\
 & \quad \sum_{n_{ik}=n+l_k-j_i+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_i-j_{ik})} \\
 & \quad \frac{(n_{is}-n_{ik}-1)!}{(j_s-2)! \cdot (n_i-j_i+1)!} \cdot \\
 & \quad \frac{(n_{is}-j_s-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 & \quad \frac{(n_{ik}-n_s-l_k-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_k)!} \cdot \\
 & \quad \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \quad \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \quad \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \quad \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \quad \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \quad \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \quad \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_s+s-k+1)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - l_k - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i)!}{(n_s - j_i - n - l_i - j_i - k - 1)!} \cdot \\
 & \frac{(n - j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(n - j_s - n - l_i - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!}{(n_{i_k} + l_{i_k} - j_{i_k} - j_{s_a}^{i_k})! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot \\
 & \frac{(l_i + j_{s_a}^{i_k} - l_{i_k} - s)!}{(j_{i_k} - l_i - j_i - l_{i_k})! \cdot (j_i + j_{s_a}^{i_k} - j_{i_k} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{i_k}+s-n-l_i-j_{s_a}^{i_k}+1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{i_k}=l_{i_k}+n-D}^{l_{i_k}-k+1} \sum_{(j_i=l_{i_k}+s-k-j_{s_a}^{i_k}+2)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)}
 \end{aligned}$$

GÜLDÜŞÜMÜ

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - l_{ik} - k + 1)! \cdot (l_s - j_{sa} - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^k - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=D+l_{ik}+s-n-l_i-j_{sa}^{ik}+2}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
& \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}
\end{aligned}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{j_s=1}^{()} \sum_{l_{ik}=l_i+1}^{()} \sum_{n_i=n+l_k}^{()} \sum_{n_{ik}=n+l_k-j_{ik}+1}^{()} \sum_{n_s=n-j_i+1}^{()} \frac{(l_i - l_{i+1})}{(j_i - j_{ik} + 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} + j_{ik} - j_i - l_k)}{(n_{ik} - n_s - l_k - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

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$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{n_i=n+k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_s=n_{ik}+j_{ik}-j_i)}^{(\quad)} \frac{(n_i+j_s-j_{ik}-2s-1)!}{(n_i-1)! \cdot (n_i+j_s-j_{ik}-2 \cdot s)!} \cdot \frac{(n_i-j_s-k-1)!}{(n_i-j_s-1)! \cdot (j_s-2)!} \cdot \frac{(D-l_i)!}{(D-j_i-n-l_i)! \cdot (n-j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge j_{sa}^{ik} - l_{ik} = l_{ik} \wedge$$

$$D + s - l_i \leq l_i \leq D + s - n - 1 \wedge$$

$$D \geq n < n \wedge l_s \leq D - n \wedge$$

$$j_{sa}^{ik} < j_{sa}^i \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^s, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} &= \sum_{k=1}^{D+l_s+s-n-l_i(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)} \\
 &\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n-j_s+1)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{is}+j_s-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}=n-k-j_s+1)}^{n_{is}+j_s-j_{ik}} \\
 &\frac{(n_{is}-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
 &\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 &\frac{(n_{ik}-n_{is}-k-1)!}{(j_i-j_s-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-k)!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=1}^{D+l_s+s-n-l_i(l_s-k+1)} \sum_{(j_s=2)} \\
 &\sum_{j_{ik}=l_s+j_{sa}^{ik}-k-s+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n-j_s+1)}
 \end{aligned}$$

GÜLDÜZYA

$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \frac{(n_{i_k} - n_s - l_k - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_k)!} \cdot \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)! \cdot (j_i - j_{i_k} - 1)!} \cdot \frac{(j_i - j_s - n - l_k - 1)! \cdot (j_s - 2)!}{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \sum_{j_{i_k}=l_i+n+j_{s_a}^{i_k}-D-s}^{l_i+j_{s_a}^{i_k}-k-s+1} \sum_{(j_i=j_{i_k}+s-j_{s_a}^{i_k})}^{()}$$

$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot$$

GÜLDÜSÜZ

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s + j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=i}^{(\cdot)} \sum_{l=(j_s=1)}^{(\cdot)} \\
 & \sum_{j_{sa}^{ik}=i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-i-l-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

GÜLDÜMNA

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{sa}^{ik}} \sum_{(n_{is}=n_{ik}+j_{ik}-j_i)}^{(\quad)}$$

$$\frac{(n_i+j_{sa}^{ik}-j_{sa}^{ik}-j_{sa}^{ik}-I)!}{(n_i-I)! \cdot (n_i+j_{sa}^{ik}-2 \cdot s)!}$$

$$\frac{(\quad - k - 1)!}{(\quad - j_s - \quad + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{ik} + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + j_{sa}^{ik} + s - n - j_{sa}^{ik}) \vee$$

$$(D > n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_i - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \left(\sum_{k=2}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{j=2}^{l_s-j_{sa}^{ik}+1} \sum_{n_i=n_{is}+j_s-1}^{n_i-n_{is}-1} \sum_{n_{ik}=n_{is}+j_s-1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}} \sum_{n_s=n-j_i+1}^{n_s+n+\mathbb{k}-j_s+1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) +$$

GÜLDÜZMÜŞA

$$\begin{aligned}
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_i^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k}^{n_i+j_s-j_i} \sum_{(n_{is}=n-k-j_s+1)}^{(n_{ik}+j_i-j_i-k)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{is} - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \left(\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) + \\
 & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \right. \\
 & \left. \sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \right)
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - l_k - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n_{i_s} - l_i - 1)!}{(n_s - j_i - n_{i_s} - l_i - j_i)!} \cdot \\
 & \frac{(n_{i_s} - j_s - n_{i_k} - 1)! \cdot (j_s - 2)!}{(n_{i_s} - j_s - n_{i_k} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{i_k} - j_{i_s}^{i_k} + 1)!}{(j_{i_k} + l_{i_k} - j_{i_s}^{i_k})! \cdot (j_{i_k} - j_s - j_{i_s}^{i_k} + 1)!} \cdot \\
 & \frac{(l_i + j_{i_s}^{i_k} - l_{i_k} - s)!}{(j_{i_k} + l_i - j_i - l_{i_k})! \cdot (j_i + j_{i_s}^{i_k} - j_{i_k} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{i_k}+s-n-l_i-j_{i_s}^{i_k}+1} \sum_{(j_s=2)}^{(j_{i_k}-j_{i_s}^{i_k}+1)} \\
 & \sum_{j_{i_k}=l_i+n+j_{i_s}^{i_k}-D-s}^{l_s+j_{i_s}^{i_k}-k} \sum_{(j_i=j_{i_k}+s-j_{i_s}^{i_k}+1)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)}
 \end{aligned}$$

GÜLDÜŞMÜŞ

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_{sa} - k + 1)! \cdot (l_s - j_{sa} - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^k - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_{sa} - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{l_{ik} + s - n - l_i - j_{sa}^{ik} + 1} \sum_{(j_s=2)}^{(l_s - k + 1)} \\
& \sum_{j_{ik}=l_s + j_{sa}^{ik} - k + 1}^{l_{ik} - k + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik} + 1)}^{(l_i - k + 1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is} + j_s - j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}
\end{aligned}$$

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - l_{ik} - s)!} \cdot \\
 & \frac{(D + j_i - n - l_i)! \cdot (n - j_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D}^{l-1} \sum_{j_s=n-l_i-j_s}^{(l_s-k+1)} \frac{(l_s-k+1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_i-k+1} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \frac{(n_i-n_{is}-j_s+1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^n \sum_{(n_s=n-j_i+1)}^{(n_i-j_s+1)} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_s-l_k-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

GÜLDÜNYA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{()} \sum_{j_s=1}^{()}$$

$$\sum_{j_{i+1}=l_i+1}^{()} \sum_{j_i=l_i+n-D}^{()}$$

$$\sum_{n_i=n+1}^n \sum_{n_{ik}=n+k}^{(j_{ik}+1)} \sum_{n_s=n-j_i+1}^{(j_i-k)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{()}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{()}$$

GÜLDENMYA

$$\sum_{n_i=n+l_k}^n \sum_{(n_i=j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_i+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(\quad)} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k - 1)! \cdot (k - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - l_i - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l_i \geq 0 \wedge$$

$$j_{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_k \wedge$$

$$l_{k_z}: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{SDOSD} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{i_s} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_k - 1)!}{(n_s - j_i - n - l_k - 1)!} \cdot \\
 & \frac{(n_i - j_s - n - 1)! \cdot (j_s - 2)!}{(l_{ik} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot
 \end{aligned}$$

GÜLDÜSÜZ

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
 & \frac{(n - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=D+l_s}^{i^{l-1}} \sum_{j_s=2}^{n-l_i+1} \sum_{k=s+1}^{l_i+j_s-k-s+1} \sum_{j_i=n+j_{sa}^{ik}-D-s}^{(j_i=j_{ik}+s-j_{sa}^{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜMNA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{()} \sum_{j_s=l_i}^{()}$$

$$l_i + j_{sa}^{ik} - i^{l-s+1}$$

$$\sum_{j_{ik}=l_i+n}^{()} \sum_{j_{sa}^{ik}=D-s}^{()} \sum_{j_{sa}^{ik}}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_i=n+l_k-1}^{(n_i-j_{ik})} \sum_{n_i=n+l_k-1}^{(n_i+j_{ik}-j_{sa}^{ik})} \sum_{n_i=n+l_k-1}^{(n_i-j_i+1)}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - k - 1)! \cdot (n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - k - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{j_s=l_i+n-D-s+1}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_i=n+l_k-j_s+1}^{(n_i-j_s+1)}$$

GÜLDENWA

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_z}} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot \frac{(D - l_s)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_i + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$(D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik})) \wedge$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^s, \dots, \mathbb{k}_z, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k}_z \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 f_{z \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = & \left(\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_i+n-D-s)} \right. \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+l_k)}^{(n_i+j_s-j_{ik}+j_i-l_k)} \\
 & \frac{(n_s - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - j_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - j_s - k - 1)!}{(j_i - k - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - \mathbf{l}_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbf{l}_k)!} \\
 & \frac{(n_s - \mathbf{l}_s - 1)!}{(n_s + j_s - \mathbf{n} - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - \mathbf{l}_s - 1)!}{(j_s - \mathbf{l}_s + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
 & \left. \frac{(D - l_i)!}{(D + \mathbf{l}_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \right) + \\
 & \left(\sum_{k=1}^{D+l_{ik}+s-\mathbf{n}-l_i-j_{sa}^{ik}+1} \sum_{(j_s=2)}^{(l_i+\mathbf{n}-D-s)} \right. \\
 & \sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{j_i+j_{sa}^{ik}-s-1} \sum_{(j_i=l_i+\mathbf{n}-D)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=\mathbf{n}+\mathbf{l}_k}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbf{l}_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \left. \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \right)
 \end{aligned}$$

GÜLDÜMÜŞKA

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{sa}^{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(n - l_i)!} \cdot \\
 & \sum_{k=1}^{D+l_{ik}} \sum_{(j_s=2)}^{n-l_i-j_{sa}^{ik}+1} (n - j_i)! \\
 & \sum_{j_i=l_{ik}+s-k-j_{sa}^{ik}+2}^{l_{ik}-1} (l_i - k + 1) \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜSÜZ

A

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_{ik}+s-n-l_i-j_{sa}^{ik}+1} \binom{l_{ik}+1}{k} \binom{l_i+n-j_{ik}-s+1}{l_i+n-k-s+1}$$

$$\sum_{l=0}^{l_{ik}-k} \binom{l_i-k}{l} \binom{l_i+n-j_{ik}-s+1}{l_i+n-k-l-s+1}$$

$$\sum_{l=0}^n \binom{l_i-k}{l} \binom{l_i+n-j_{ik}-s+1}{l_i+n-k-l-s+1}$$

$$\sum_{l=0}^{n+l_{ik}-j_{ik}} \binom{l_i-k}{l} \binom{l_i+n-j_{ik}-s+1}{l_i+n-k-l-s+1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

GÜLDENWASSER

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_{ik}+s-n-l_i-j_{sa}^{ik}+2}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(l_i-k+1)}^{(l_i-k+1)} \\
 & \sum_{n+l_k}^n \sum_{(n_i+1)}^{(n_i+1)} \\
 & \sum_{n+l_k-j_{ik}}^{n+l_k-j_{ik}} \sum_{(j_i+1)}^{(n_{ik}+j_{ik}-j_i-1)} \\
 & \frac{(n - n_{is} - 1)!}{(j_s - 2)! \cdot (n - n_{is} - j_s + 1)!} \\
 & \frac{(n - n_{ik} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i + j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{(i)} \sum_{(j_s=1)}^{(i)}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i+1} \sum_{(j_i=l_i+n-D)}^{(l_i-i+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{ik} - 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \\
 & \frac{(l_{ik} + j_{sa}^{ik} - l_{ik} - s)!}{(l_{ik} + l_i - j_i - l_i)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \left(\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \right) \cdot \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜZ

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned} & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\ & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \end{aligned}$$

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{n-l_i-k+1} \frac{(n-l_i-k+1)!}{(j_s - k - j_{sa}^{ik} + 1)!} \cdot \\
 & \sum_{j_{ik}=j_{sa}^{ik}-s}^{j_{ik}=j_{sa}^{ik}-s} (j_i = l_s - k + 1) \\
 & \sum_{n_i=n+l_k}^{n_i=n+l_k} \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_s+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
 \end{aligned}$$

GÜLDÜM YA

$$\begin{aligned}
 & \sum_{k=D+l_s+s-n-l_i+1}^{l-1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik}+1)}^{(l_{ik}+s-k-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+l_k)}^{n_{is}+j_s-j_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_s-l_k-1)!}{(j_i-j_s-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_k)!} \cdot \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{()} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-i-l-j_{sa}^{ik}+1)}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(l_{ik} - j_{ik} - j_{sa} + 1)! \cdot (j_{ik} - j_{sa} - l_k)!} \cdot \\
 & \frac{(D - l_i - 1)!}{(D - j_i - n - l_i - 1)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_i-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-k)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(j_s)} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=1}^{s-n-(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_s+j_{sa}^{ik}-l_{ik}+n-D)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n)} \sum_{(n_i=n+\mathbb{k})}^{(n_i-j_s+1)} \\
 & \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_{is}+j_s-j_{ik})} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$D + l_s + s - n - l_i \quad (l_s - k + 1)$$

$$\sum_{k=1} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{j_{sa}^{ik}}^{(n_i - j_s + 1)}$$

$$(n_i - j_s + 1)$$

$$\sum_{n+l_k}^{(n_i - n + l_k - j_s + 1)}$$

$$\sum_{j_s - j_{ik}}^{(n_i - j_s - j_{ik})}$$

$$\sum_{=n+l_k-j_{ik}+1}^{(n_s = n - j_i + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$(n_{is} - n_{ik} - 1)!$$

$$(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!$$

$$(n_{ik} - n_s - l_k - 1)!$$

$$(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!$$

$$(n_s - 1)!$$

$$(n_s + j_i - n - 1)! \cdot (n - j_i)!$$

$$(l_s - k - 1)!$$

$$(l_s - j_s - k + 1)! \cdot (j_s - 2)!$$

$$(l_{ik} - l_s - j_{sa}^{ik} + 1)!$$

$$(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!$$

$$(D - l_i)!$$

$$(D + j_i - n - l_i)! \cdot (n - j_i)! +$$

$$i^{l-1} \quad (l_s - k + 1)$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s - k + 1)}$$

GÜLDÜZYAN

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-n_{is}+n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_s-k)}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-k)!} \\
 & \frac{(n-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +
 \end{aligned}$$

$$\sum_{k=i}^l \sum_{(j_s=1)}^{()}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{ik}=n+k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{(n_s=n-j_i+1)}^{n_{ik}+j_{ik}-j_i-k} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}+1)!}
 \end{aligned}$$

GÜLDENWA

$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=0}^{D+l_s+s} \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_{ik}-k} \sum_{j_{ik}=j_i+n-D}^{n} \sum_{n_i=n+k}^{n} \sum_{n_s=n+k-j_s+1}^{n_i-j_s+1} \sum_{n_{ik}=n_s+j_s-j_{ik}} \sum_{n_s=n_{ik}+j_{ik}-j_i-k}^{n} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D - n < l_s \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=0}^{D+l_s+s-n-l_i} \sum_{(j_s-2)}^{(n-D-j_{sa}^{ik})} \sum_{i_{ik}=l_{ik}+n-j_{ik}+1}^{i_{ik}+1} \sum_{n_i=l_i-k}^n \sum_{n_{is}=n+l_s-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{n_{ik}=n_{is}-j_{ik}+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

GÜLDÜMNYA

$$\begin{aligned}
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{sa}^{ik}+1}^{n_{is}+j_s-j_{sa}^{ik}} \sum_{(n_{ik}+j_{sa}^{ik}-j_i+l_k)}^{(n_{ik}+j_{sa}^{ik}-j_i+l_k)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{ik} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - l_k - 1)! \cdot (n_{ik} + j_{sa}^{ik} - n_s - j_i - l_k)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - j_i - n - \mathbb{k} - 1)!}{(n_s - j_i - n - \mathbb{k} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=i}^{(\cdot)} \sum_{l=(j_s=1)}^{(\cdot)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}
 \end{aligned}$$

GÜLDÜSÜZ

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \sum_{k=1}^{D+l_s+s-n-l_i} \binom{l_s - k + 1}{k} \sum_{l_{ik}=l_{ik}+n-j_{sa}^{ik}+1}^{l_{ik}+1} \binom{l_{ik} - l_s - j_{sa}^{ik} + 1}{l_{ik} - j_{ik} - l_s + 1} \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{j_{sa}^{ik}} \binom{l_{ik} - l_s - j_{sa}^{ik} + 1}{j_{sa}^{ik} - j_{sa}^{ik} + 1} \sum_{j_{ik}=j_{ik}+s-j_{sa}^{ik}}^{j_{ik}+1} \binom{l_{ik} - l_s - j_{sa}^{ik} + 1}{j_{ik} - j_{ik} - l_s + 1} \sum_{n_{ik}=n_{ik}+k}^{n_{ik}+k} \binom{l_{ik} - l_s - j_{sa}^{ik} + 1}{n_{ik} + k - (n_{ik} + k - j_s + 1)} \sum_{n_{ik}=n_{ik}+k}^{n_{ik}+k} \binom{l_{ik} - l_s - j_{sa}^{ik} + 1}{n_{ik} + k - (n_{ik} + k - j_s + 1)} \sum_{n_{ik}=n_{ik}+k}^{n_{ik}+k} \binom{l_{ik} - l_s - j_{sa}^{ik} + 1}{n_{ik} + k - (n_{ik} + k - j_s + 1)}$$

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\geq n < n \wedge l_s > D - 1 + 1 \wedge$$

$$2 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{sa}^{ik} + s - 1 \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge$$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$fz_{S \Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-k)} \sum_{(j_i=l_s+n-D)}^{(n_i-k+1)} \sum_{n_{ik}=n_s+\mathbb{k}}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \sum_{n_{is}=n+\mathbb{k}-j_i+1}^{(n_{is}+j_s-j_{ik})} \sum_{(j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \frac{(n_s - n_{is} - 1)!}{(j_s - 2)! \cdot (n_s - n_{is} - j_s + 1)!} \cdot \frac{(n_s - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-k+1)} \sum_{(j_i=l_s+n-k+1)}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - l_k - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i)!}{(n_s - j_i - n - l_i - j_i - k - 1)!} \cdot \\
 & \frac{(n - j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(l_{i_k} - j_{i_k} - j_{s_a} + 1)!} \cdot \\
 & \frac{(j_{i_k} - j_s - j_{s_a} + 1)! \cdot (j_{i_k} - j_s - j_{s_a} + 1)!}{(D - l_i)!} + \\
 & \frac{(D + j_i - n - l_i)! \cdot (n - j_i)!}{\sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{i_k}=j_i+l_{i_k}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!}
 \end{aligned}$$

GÜLDÜZ

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - l_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{l_s + s - n - l_i} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \\
& \sum_{j_{ik} = j_i + l_{ik} - l_i} \sum_{(j_i = l_i + n - D)}^{(l_s + s - k)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik}} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k})}^{(\cdot)} \\
& \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{SDOSD} = \sum_{k=1}^{l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_i+1)}$$

$$= \sum_{(j_s=l_s+n-D)}^{(j_i+1)} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(j_i+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-k-s+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n_{is}+1)}$$

$$\sum_{n+l_k-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i)}^{(n_{ik}+j_{ik}-j_i)}$$

$$\frac{(n_{is}-1)! \cdot (n_{is}-j_s+1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{ik}-1)!}{(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_s-k-1)!}{(j_i+j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-k)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\begin{aligned}
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{i_s} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k} - j_{ik} + 1}^{n_{i_s} + j_s - j_{ik}} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k})} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - j_i - n - j_i - j_i)!}{(n_s - j_i - n - j_i - j_i - k - 1)!} \cdot \\
 & \frac{(n - j_s - n - 1)! \cdot (j_s - 2)!}{(n - j_s - n - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_i + l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \\
 & \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_s + j_{sa}^{ik} - k} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{()} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{i_s} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{i_s} + j_s - j_{ik}} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k})}^{()} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-k-s+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_s+s-n} \sum_{j_s=l_i+n-D-s}^{(l_s-k-1)} \frac{(l_s-k-1)!}{(j_s+l_i+n-D-s-k)!} \cdot \\
 & \sum_{j_{ik}=j_{sa}^{ik}-1}^{(j_i-j_{ik}-l_i-l_{ik})} \frac{(j_i-j_{ik}-l_i-l_{ik})!}{(j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \cdot \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{s+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
 \end{aligned}$$

GÜLDÜZMAYA

GÜLDENFELD

$$\begin{aligned}
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k}^{n_i+j_s-j_{ik}} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - j_s - l_k - 1)!}{(j_i - l_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik}$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k}: z = 1 \Rightarrow$$

$$f_Z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{\binom{()}{j_s=l_s+n-D}} \sum_{\binom{()}{j_{ik}=j_i+l_{ik}-l_i}} \sum_{\binom{()}{j_i=l_{ik}+n+s-D-j_{sa}^{ik}}} \sum_{\binom{()}{n_i=n+\mathbb{k}}} \sum_{\binom{()}{n_{is}=n+\mathbb{k}-j_s+1}} \sum_{\binom{()}{n_{ik}+j_{ik}-j_i-\mathbb{k}}} \sum_{\binom{()}{n_s=n-j_i+1}}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - k + 1)! \cdot (l_s - k - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_s - k + 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{D+l_s+s-k-l_i} \sum_{j_s=l_s+n-D}^{l_s-k+1} \\
& \sum_{j_{ik}=j_i+l_{ik}-l_i}^{l_{ik}+s-k-j_{sa}^{ik}+1} \sum_{j_i=l_s+s-k+1}^{l_{ik}+s-k-j_{sa}^{ik}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=D+l_s+s_i-l_i+1}^{D-n+1} \sum_{j_s=n-D}^{l_s-k+1} \\
& \sum_{j_i+l_{ik}-l_i}^{l_{ik}+s_i-1} \sum_{j_s=n+s-D-j_{sa}^{ik}}^{l_{ik}+s_i-1} \\
& \sum_{n_{is}+k}^{n_{is}+k} \sum_{n_{is}=n+k-j_s+1}^{n_{is}+k} \\
& \sum_{n_{is}+k-j_{ik}+1}^{j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{ik})}^{(l_s+s-k)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_i} \sum_{(n_s=n_{ik}+j_{ik}-j_i)}^{(\cdot)}$$

$$\frac{(n_i+j_s-j_{ik}-2s-I)!}{(n_i-I)! \cdot (n_i+j_i+j_s-2 \cdot s)!}$$

$$\frac{(j_s-k-1)!}{(j_s-j_i+1)! \cdot (j_s-2)!}$$

$$\frac{(D-l_i)!}{(D-j_i-n-l_i)! \cdot (n-j_i)!}$$

$$D \geq n < n \wedge l_s > D - n \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge j_{sa}^{ik} - j_i = l_{ik} \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_i - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^s, \dots, k, j_{sa}^i\} \wedge$$

$$3 \wedge s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-k} \binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_s-l_k-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_k)!} \cdot \\
 & \frac{(n-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - k + 1)! \cdot (l_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_s - 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D}^{D-n+1} \sum_{j_s=l_s+n-D}^{l_s-k+1} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

GÜLDÜZÜMMA

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \sum_{k=1}^{D+l_s+s-n-l_i} \binom{D+l_s+s-n-l_i}{k} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{(j_s=j_{ik}+j_{sa}^{ik}+1)} \sum_{j_{ik}=l_{ik}+n-l_i-k}^{j_{ik}=l_{ik}+n-l_i-k} \sum_{j_i=j_{ik}+l_i-l_{ik}}^{j_i=j_{ik}+l_i-l_{ik}} \sum_{n_{ik}=n-l_i-k}^{n_{ik}=n-l_i-k} \sum_{n_{is}=n+l_k-j_s+1}^{n_{is}=n+l_k-j_s+1} \binom{n_{ik}=n-l_i-k}{j_s-j_{ik}} \binom{n_{is}=n+l_k-j_s+1}{n_s=n_{ik}+j_{ik}-j_i-l_k} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - I)!}{(n_i + n - I)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\begin{aligned} &\geq n < n \wedge l_s > D - I + 1 \wedge \\ &2 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge \\ &j_{ik} = j_i + j_{sa}^{ik} - s \wedge \\ &n + s - l_i \leq j_i \leq n \wedge \\ &l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge \\ &D \geq n < n \wedge I = k > 0 \wedge \\ &j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge \\ &s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge \end{aligned}$$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$fz \overset{DOSD}{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_s+n-D)}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(n_i-j_{ik}+1)} \frac{(n_{is}+j_s-j_{ik})!}{(n_{ik}+j_{ik}-j_i-\mathbb{k})!} \frac{(n_{ik}+j_{ik}-j_i-\mathbb{k})!}{(n_{ik}+j_{ik}-j_i-\mathbb{k})!} \frac{(n_{is}-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \frac{(n_{ik}-n_s-\mathbb{k}-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-\mathbb{k})!} \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(n_i-j_{ik}+1)}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - l_k - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_s - j_i - n - l_i - j_i)!}{(n_s - j_i - n - l_i - j_i - k - 1)!} \cdot \\
 & \frac{(n - j_s - n - l_i - 1)! \cdot (j_s - 2)!}{(n - j_s - n - l_i - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{i_k} - j_{i_k} - j_{s_a}^{i_k} + 1)!}{(n - j_s - n - l_i - 1)! \cdot (j_{i_k} - j_s - j_{s_a}^{i_k} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{D-n+1} \sum_{(j_s=l_s+n-D)}^{(l_s-k+1)} \\
 & \sum_{j_{i_k}=l_{i_k}+n-D}^{l_{i_k}-k+1} \sum_{(j_i=j_{i_k}+l_i-l_{i_k})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_k-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_k)} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot
 \end{aligned}$$

GÜLDÜM YA

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i - 1)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{D+l_s} \sum_{l_i=n-l_i}^{n-l_i} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{n-l_i} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(j_i=j_{ik}+l_i-l_{ik})} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k})}^{(j_i=j_{ik}+l_i-l_{ik})} \\
& \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 1 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{sa}^s=1}^{l-1} \sum_{j_{sa}^{ik}=1}^{j_{sa}^i-j_{sa}^s} \sum_{j_i=2}^{(l_s+s-k)} \\ & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{j_i+l_{ik}-l_i} \sum_{j_i=s+1}^{j_i+s+1} \\ & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \end{aligned}$$

GÜLDÜMÜYKA

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-k+1)} \sum_{(j_i+s-k+1)}$$

$$\sum_{n+lk}^{(n_i-k+1)}$$

$$\sum_{n+lk}^{(n_{is}-n_i-k+1)}$$

$$\sum_{n+lk-j_{ik}}^{(n_{ik}+j_{ik}-j_i-k+1)}$$

$$\sum_{n+lk-j_{ik}}^{(n_{ik}-j_i-k+1)}$$

$$\frac{(n_{is} - 1)!}{(n_{is} - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - 1)!}{(n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - lk - 1)!}{(j_i + j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - lk)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=i}^{()} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-i^{l+1})} \sum_{(j_i=s)}$$

GÜLDÜMÜYA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(l_{ik} - j_{ik} - l_s - 1)! \cdot (j_{ik} - l_s - 1)!} \cdot \\
 & \frac{(D - l_i - 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{l-1} \sum_{(j_s=j_{ik}-j_{sa}^k+1)}^{(j_s)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=s+1)}^{(l_s+s-k)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(j_s)} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{(l)} \sum_{(j_s=1)}^{(j_s)}
 \end{aligned}$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_{sa}^{ik}} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - \mathbb{k})!}{(n_i - n - \mathbb{k})! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(D - l_i)}{(D + s - \mathbb{k} - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_s^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{s_1}, \dots, j_{sa}^{s_k}, \dots, \mathbb{k}, j_s\} \wedge$$

$$s > 3 \wedge s = s_1 \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_z^{S \Rightarrow j_s, j_{ik}, j_i} = \sum_{k=1}^{i-1} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \\
 & \frac{(n_s - \dots)}{(n_s + j_i - \dots)! \cdot (n - j_i)!} \\
 & \frac{(l_s - \dots - 1)!}{\dots + 1) \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + \dots - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{i^{l-1} (l_s - k + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})} \binom{\dots}{\dots} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n-j_{ik}+1} \sum_{k=j_{sa}^{ik}}^{l_i+j_{sa}^{ik}-s+1} \sum_{j_s=1}^{\binom{()}{j_s}} \sum_{j_i=j_{ik}+l_i-l_{ik}}^{\binom{()}{j_s}} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{i^{l-1}} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{\binom{()}{j_s}}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-k} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i+j_i+j_{sa}^{ik}-j_{ik}-s)!}{(n_i-n-l)! \cdot (n+j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(l_s-l_k-1)!}{(l_s-l_k+1) \cdot (j_s-2)!} \\
 & \frac{(D-l_i)!}{(D+j_i+l_i-l)! \cdot (n-j_i)!} \\
 & \sum_{k=l}^{()} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j_i=s)}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s-l_k)!}{(n_i-n-l_k)! \cdot (n+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+s-n-l_i)! \cdot (n-s)!}
 \end{aligned}$$

$$D \geq n < l_s \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 & f_{z \Rightarrow i}^{DOSD} \sum_{k=1}^{i-l} \sum_{j_i}^{i-k+1} \\
 & \sum_{j_s}^{l_i + j_{sa}^{ik} - k - 1} \sum_{j_i}^{i-l_{ik}} \\
 & \sum_{n_i = n + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k} - j_{ik} + 1}^{j_s - j_{ik}} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=1}^{i^l} \sum_{(j_s=1)}^{()} \\
 & \sum_{j_{ik}=j_{sa}^{ik}}^{l_i+j_{sa}^{ik}-i^{l-s+1}} \sum_{(j_i=j_{ik}+l_i-}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-1)!} \cdot \\
 & \frac{(n_s-n_{ik}-1)!}{(j_i-j_{ik}-2)! \cdot (n_s-j_{ik}-j_i-l_k)!} \cdot \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(n-l_s-j_{sa}^{ik}+1)!}{(l_{ik}-j_i-l_s+1)! \cdot (j_{ik}-j_{sa}^{ik})!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
 & \sum_{k=1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{()} \\
 & \frac{(n_i+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s-1)!}{(n_i-n-1)! \cdot (n+j_i+j_{sa}^{ik}-j_{ik}-2 \cdot s)!}
 \end{aligned}$$

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$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{(j_s-1)} \sum_{(j_s=1)}^{()}$$

$$\sum_{(j_s=1)}^{()} \sum_{(i=s)}^{()}$$

$$\sum_{n_i=n+l_i}^n \sum_{(j_s=1)}^{()} \sum_{(i=s)}^{()} \frac{(n_i - j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}{(n_i - n - l_i - j_{sa}^{ik} + j_{ik} - 2 \cdot s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

- $D \geq n < n \wedge l_s \leq D - n + 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$
- $j_{ik} = j_i + j_{sa}^{ik} - s$
- $j_i + s - j_{sa}^{ik} \leq j_i \leq n$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \leq l_i + j_{sa}^{ik} - s \leq j_{ik} \wedge$
- $D + s - n < l_i \leq D + j_i + s - n - 1 \wedge$
- $D \geq n < n \wedge \mathbb{k} > 1 \wedge$
- $j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$
- $s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$
- $s > 1 \wedge s = s + \mathbb{k} \wedge$
- $\mathbb{k}_z: z = 1 \Rightarrow$

$$f_z S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \sum_{k=1}^{D+l_s+s-n-l_i(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{()}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-k)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_s-l_k)}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_k)!} \cdot \\
 & \frac{(n_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_s+s-k+1)}^{(l_i-k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - k - 1)!}{(l_s - j_{ik} - k + 1)! \cdot (l_s - j_{sa} - 2)!} \cdot \\
& \frac{(l_{jk} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{i=0}^{l_i} \sum_{j_s=2}^{(l_s-k+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-k+1)} \sum_{j_i=l_i+n-D}^{(l_i-k+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{()} \sum_{(j_s=1)}$$

$$\sum_{(l_i=1)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n}^n \sum_{(n_{ik}=n+l_{ik}-j_i+1)} \sum_{n_s=n-j_i+1}^{n_i-j_{ik}+1} \sum_{n_s=n-j_i+1}^{n_i-j_i-k}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_s - k - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-k)}$$

$$\sum_{n_i=n+l_{ik}}^n \sum_{(n_{is}=n+l_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}}} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - I)!}{(n_i - n - I)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - k)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$

$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik}$

$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$

$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$

$s > 3 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$fz \overset{DOSD}{\Rightarrow} j_s, j_{ik}, j_i = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{\binom{()}{j_s=2}}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-k} \sum_{\binom{()}{j_i=j_{ik}+l_i-l_{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{is}=n+\mathbb{k}-j_s+1}}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - \mathbf{l}_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbf{l}_k)!} \\
 & \frac{(n_s - \dots)}{(n_s + j_i - \dots)! \cdot (n - j_i)!} \\
 & \frac{(l_s - \dots - 1)!}{\dots + 1) \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + \dots - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\dots)} \\
 & \sum_{n_i=\mathbf{n}+\mathbf{l}_k}^n \sum_{(n_{is}=\mathbf{n}+\mathbf{l}_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbf{l}_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbf{l}_k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 1)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(n - l_i)!}{(D + j_i - n - l_i)! \cdot (j_i)!} + \\
 & \sum_{i=0}^{l_s - k + 1} \sum_{j_s=2}^{i - D + l_s + 1} \sum_{j_{ik}=l_i}^{l_i + j_{sa}^{ik} - i + 1} \sum_{j_{is}=n+k-j_s+1}^{n} \sum_{n_s=n-j_i+1}^{(n_i - j_s + 1)} \sum_{n_{ik}=n+k-j_{ik}+1}^{n_{is} + j_s - j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik} + j_{ik} - j_i - k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

GÜLDÜMVA

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{l_i + j_{s_a}^{ik} - l_i - s + 1} \sum_{(j_s=1)}^{(n - j_i - l_{ik})} \\
 & \sum_{n_i = n + l_k}^n \sum_{(n_{ik} = n_i - j_{ik} + 1)}^{(n_i - j_{ik} + 1)} \sum_{(n_s = n_i - j_i - l_k)}^{(n_{ik} - j_{ik} - l_k)} \\
 & \frac{(n_i - j_{ik} + 1)!}{(j_i - j_{ik} - l_i - 1)! \cdot (n_{ik} - j_{ik} - n_s - j_i - l_k)!} \cdot \\
 & \frac{(n_{ik} - j_{ik} - l_k - 1)!}{(n_s - 1)!} \cdot \frac{(n_s - 1)!}{(j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_{ik} - j_{ik} - l_s + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{s_a}^{ik})!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=1}^{D + l_s + s - n - l_i} \sum_{(j_s = j_{ik} - j_{s_a}^{ik} + 1)}^{(n - j_s + 1)} \\
 & \sum_{j_{ik} = l_i + n + j_{s_a}^{ik} - D - s}^{l_s + j_{s_a}^{ik} - k} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{(n - j_s + 1)} \\
 & \sum_{n_i = n + l_k}^n \sum_{(n_{is} = n + l_k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik}} \sum_{(n_s = n_{ik} + j_{ik} - j_i - l_k)}^{(n - j_s + 1)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - 1)!}{(n_i - n - 1)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$f_{z \Rightarrow j_s, j_{ik}, j_i}^{S^{DOSD}} = \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(l_i - l_j)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+s-n-l_i} \sum_{j_s=l_i+n-D-s+1}^{l_i+l_{ik}-k-s+1} \binom{()}{j_i=j_{ik}+l_i-l_{ik}} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜMNA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_i+n_{is}-j_{ik}-D-s}^{l_i+j_{sa}^{ik}-k-s+1} \sum_{(n_i-j_s+1)}^{(n_{is}+lk-j_s+1)}$$

$$\sum_{(n_{ik}+lk-j_i-lk)}^{(n_i-j_s+1)} \sum_{(n_s=n-j_i+1)}$$

$$\sum_{(n_s=n-j_i+1)}^{(n_i-n_{is}-1)!}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - lk - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - lk)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=i}^{()} \sum_{(j_s=1)}^{()}$$

$$\begin{aligned}
 & \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_i + j_{sa}^{ik} - l_i - s + 1} \binom{(\quad)}{\quad} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{ik} = n + k - j_{ik} + 1)}^{(n_i - j_{ik} + 1)} \sum_{n_s = n - j_i}^{n_{ik} + j_{ik} - j_i - k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - k)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{ik} - 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \sum_{k=1}^{D + j_i - n - l_i} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_s - k + 1)} \binom{(\quad)}{\quad} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \binom{(\quad)}{\quad} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik}} \binom{(\quad)}{\quad} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k)}^{(n_i - j_s + 1)} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - I)!}{(n_i - n - I)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

GÜLDÜZÜM

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=1}^{D+l_s} \sum_{(j_s=2)}^{n-l_i(j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{fz \stackrel{DOSD}{\Rightarrow} j_s, j_{ik}, j_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-k)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=1}^{D+l_s+s-n+l_i+l_s-k+1} \sum_{j_s=2}^{(l_s-k+1)} \\
 & \frac{(l_{ik}+j_s-j_{ik}-1)!}{\sum_{j_i=j_i+l_{ik}-l_i} \sum_{j_s=l_s+s-k+1}^{(j_s+1)} \\
 & \sum_{n_{ik}=n_{ik}+k}^{(n_{ik}+j_{ik}-j_i-k)} \sum_{n_{is}=n+l_k-j_s+1}^{(n_{is}+k)} \\
 & \sum_{n_{ik}=n_{ik}+k-j_{ik}+1}^{(n_{ik}+j_{ik}-j_i-k)} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-k)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
 \end{aligned}$$

GÜLDÜNYA

$$\begin{aligned}
 & \sum_{k=D+l_s+s-n-l_i+1}^{l-1} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^k+1)}^{(l_{ik}+s-k-j_{sa}^k+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+l_{ik})}^{n_{is}+j_s-j_{ik}+j_{ik}-j_i+l_{ik}} \\
 & \frac{(n_{is}-j_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \frac{(n_{is}-j_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-j_s-l_k-1)!}{(j_i-j_s-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_k)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-k-1)!}{(l_s-j_s-k+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^k+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^k+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \sum_{k=l}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^k)}^{(l_{ik}+s-l-j_{sa}^k+1)}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{n_{ik}=n+l_k-j_{ik}+1}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(l_{ik} - j_{ik} - l_i + 1)! \cdot (j_{ik} - j_i - l_k)!} \cdot \\
 & \frac{(D - l_i - 1)!}{(D + j_i - n - l_i - 1)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{D+l_s-n-l_i} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{(j_s)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-k)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}}^{(j_s)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_k)}^{(j_s)} \\
 & \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} = j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=1}^{D+s-n} \sum_{(j_s=2)}^{j_{ik}-j_{sa}^{ik}+1} f_z^{DOSD, j_{ik}, j_i} \\
 & \sum_{l_{ik}=l_i+n-D}^{l_s+j_{sa}^{ik}} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=2)}^{(l_s-k+1)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-k+1}^{l_{ik}-k+1} \sum_{(j_{ik}=l_s+j_{sa}^{ik}-k+1)}^{(n_i-j_s+1)}$$

$$\sum_{n+l_k}^{(n+l_k-j_s+1)}$$

$$\sum_{(n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k - 1)!}{(l - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=D+l_s+s-n-l_i+1}^{i-1} \sum_{(j_s=2)}^{(l_s-k+1)}$$

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$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!}$$

$$\frac{(n_s - j_i - n - 1)! \cdot (n - j_i)!}{(n_s - j_i - 1)!}$$

$$\frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s - l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=i}^{()} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-k}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

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$$\frac{(n_{ik} - n_s - k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=0}^{D+l_s+s} \sum_{j_s=j_{ik}-j_{sa}^{ik}}^{j_{ik}-k} \sum_{j_{ik}=j_{ik}+n-D}^{j_{ik}-k+n-D} \sum_{n_i=n+k}^{n_i-j_s+1} \sum_{n_s=n+k-j_s+1}^{n_s-n+k} \sum_{n_{ik}=n_s+j_s-j_{ik}}^{n_{ik}=n_s+n+l_i-l_{ik}} \frac{(n_i + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s - l)!}{(n_i - n - l)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D + n - l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge$$

$$j_{ik} - j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fz S_{\Rightarrow j_s, j_{ik}, j_i}^{DOSD} = \frac{\sum_{k=0}^{D+l_s+s-n-l_i} \sum_{(j_s-2)}^{(n-D-j_{sa}^{ik})} \sum_{i_{ik}=l_{ik}+n-j_i}^{k+1} \sum_{i=j_{ik}+l_i-l_{ik}}^{i_{ik}+1} \sum_{n_{ik}+l_{ik}}^{n_{ik}+l_{ik}+1} \sum_{n_{is}+l_{ik}}^{n_{is}+l_{ik}+1} \sum_{n_{ik}+j_s-j_{ik}}^{n_{ik}+j_{ik}-j_i-l_{ik}} \sum_{n_{ik}+l_{ik}-j_{ik}+1}^{n_{ik}+l_{ik}-j_{ik}+1} \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k})!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-l_k)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{is} - l_k - 1)!}{(j_i - l_k - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=D+l_s+s-n-l_i+1}^{i^{l-1}} \sum_{(j_s=2)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-k+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{()} \sum_{l}^{()} \\
& \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-l_k} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}
\end{aligned}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=1}^{D+l_s+s-n-l_i} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-k+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_{ik}+l_i-l_{ik})}^{(n_i-k+1)} \\
 & \sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}^{(n_i-k+1)} \\
 & \sum_{n_{ik}+j_s-j_{ik}} \sum_{(n_{ik}+j_s-j_{ik}-j_i-l_k)}^{(n_i-k+1)} \\
 & \frac{(n_i - n - l_i)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!}{(n_i - n - l_i)! \cdot (n + j_i + j_{sa}^{ik} - j_{ik} - 2 \cdot s)!} \\
 & \frac{(l_s - k - 1)!}{(l_s - j_s - k + 1)! \cdot (j_s - 2)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

GÜLDÜZYA

DİZİN

B

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin son durumunun bulunabileceği olaylara göre

- simetrik olasılık, 2.3.1.1.1.1.1/3
- toplam düzgün simetrik olasılık, 2.3.1.2.1.1.1/3
- toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

- simetrik olasılık, 2.3.1.1.1.1.2/3
- toplam düzgün simetrik olasılık, 2.3.1.2.1.1.2/3
- toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.2/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

- simetrik olasılık, 2.3.1.1.1.3.1/3
- toplam düzgün simetrik olasılık, 2.3.1.2.1.1.3/3
- toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.3/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

- simetrik olasılık, 2.3.1.1.1.1.1/2
- toplam düzgün simetrik olasılık, 2.3.1.2.1.1.1/228
- toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.1/290

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

- simetrik olasılık, 2.3.1.1.1.1.2/203
- toplam düzgün simetrik olasılık, 2.3.1.2.1.1.2/228

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.2/290

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

- simetrik olasılık, 2.3.1.1.1.1.3/103
- toplam düzgün simetrik olasılık, 2.3.1.2.1.1.3/228
- toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.3/290

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

- simetrik olasılık, 2.3.1.1.1.4.1/3
- toplam düzgün simetrik olasılık, 2.3.1.2.1.1.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.4.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

- simetrik olasılık, 2.3.1.1.1.4.2/3
- toplam düzgün simetrik olasılık, 2.3.1.2.1.4.2/3
- toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.4.2/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

- simetrik olasılık, 2.3.1.1.1.4.3/3
- toplam düzgün simetrik olasılık, 2.3.1.2.1.4.3/3
- toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.4.3/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

- simetrik olasılık, 2.3.1.1.1.1.1/207
- toplam düzgün simetrik olasılık, 2.3.1.2.1.1.1/236

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.1.1/296-297

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.1.2.1/207

toplam düzgün simetrik olasılık, 2.3.1.2.1.1.2.1/236

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.2.1/296-297

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.1.3.1/207

toplam düzgün simetrik olasılık, 2.3.1.2.1.1.3.1/236

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.3.1/296-297

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.6.1.1/3

toplam düzgün simetrik olasılık, 2.3.1.2.1.6.1.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.6.2.1/3

toplam düzgün simetrik olasılık, 2.3.1.2.1.6.2.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.1.6.3.1/3

toplam düzgün simetrik olasılık, 2.3.1.2.1.6.3.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin durumuna bağlı

simetrik olasılık, 2.3.1.1.1.1.1.1/105

toplam düzgün simetrik olasılık, 2.3.1.2.1.1.1.1/85

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.1.1/150-151

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin durumuna bağlı

simetrik olasılık, 2.3.1.1.1.1.1.1/105

toplam düzgün simetrik olasılık, 2.3.1.2.1.1.1.1/85

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.1.1/150-151

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin durumuna bağlı

simetrik olasılık, 2.3.1.1.1.1.1.1/105

toplam düzgün simetrik olasılık, 2.3.1.2.1.1.1.1/85

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.1.1.1.1/150-151

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.1.1.1/4

toplam düzgün simetrik olasılık, 2.3.1.2.2.1.1.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.2.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.1.2.1/4

toplam düzgün simetrik olasılık, 2.3.1.2.2.1.2.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.2.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.1.3.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.1.3.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumda
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.2.1.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.2.2.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.2.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumda
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.2.2.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.2.2.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.2.2.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumda
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.2.3.1/3-4

toplam düzgün simetrik olasılık,
2.3.1.2.2.2.3.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumda
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.4.1.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.4.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumda
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.4.2.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.4.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumda
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.4.3.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.4.3.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumda
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.6.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.6.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumda
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.6.2.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.6.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumda
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.6.3.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.2.6.3.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumda
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.7.1.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.2.7.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.7.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumda
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.7.2.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.2.7.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.7.2.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.2.7.3.1/3-4

toplam düzgün simetrik olasılık,
2.3.1.2.2.7.3.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.2.7.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrisinin ilk
ve herhangi bir durumunun bulunabileceği
olaylara göre

simetrik olasılık, 2.3.1.1.3.1.1.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.3.1.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.3.1.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrisinin ilk ve herhangi bir durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.3.1.2.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.3.1.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.3.1.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrisinin ilk ve herhangi bir durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.3.1.3.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.3.1.3.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.3.1.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
simetrisinin ilk ve herhangi bir durumunun
bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.3.2.1.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.3.2.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.3.2.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımsız simetrisinin ilk ve herhangi bir
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.3.2.2.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.3.2.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.3.2.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk ve herhangi bir
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.3.2.3.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.3.2.3.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.3.2.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrisinin
herhangi bir durumuna bağlı

simetrik olasılık, 2.3.1.1.4.1.1.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.4.1.1.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.4.1.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrisinin herhangi iki durumuna bağlı

simetrik olasılık, 2.3.1.1.4.1.2.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.4.1.2.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.4.1.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrisinin herhangi iki durumuna bağlı

simetrik olasılık, 2.3.1.1.4.1.3.1/4

toplam düzgün simetrik olasılık,
2.3.1.2.4.1.3.1/3

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.4.1.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrisinin her
durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.4.1.1.1/838

simetrik olasılık, 2.3.1.1.4.1.1.1/838

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız

simetrisinin her durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.4.1.2.1/838

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin her durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.4.1.3.1/838

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.5.1.1.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.5.1.1.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.5.1.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.5.1.2.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.5.1.2.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.5.1.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.5.1.3.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.5.1.3.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.5.1.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.5.2.1.1/6
toplam düzgün simetrik olasılık, 2.3.1.2.5.2.1.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.5.2.1.1/12

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.5.2.2.1/6

toplam düzgün simetrik olasılık, 2.3.1.2.5.2.2.1/3

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.5.2.2.1/12

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.5.2.3.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.5.2.3.1/4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.5.2.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

simetrik olasılık, 2.3.1.1.8.1.1.1/7-8
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.8.1.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

simetrik olasılık, 2.3.1.1.8.1.2.1/7-8
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.8.1.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

simetrik olasılık, 2.3.1.1.8.1.3.1/7-8
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.8.1.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

simetrik olasılık, 2.3.1.1.8.2.1.1/12
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.8.2.1.1/13

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

simetrik olasılık, 2.3.1.1.8.2.2.1/12
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.8.2.2.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımsız-bağımlı durumlu
 bağımlı simetrisinin ilk ve herhangi iki
 durumunun bulunabileceği olaylara göre
 herhangi iki duruma bağlı

simetrik olasılık, 2.3.1.1.8.2.3.1/8
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.8.2.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı durumlu simetrisinin ilk
 herhangi bir ve son durumunun
 bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.1.1.1/4-5
 toplam düzgün simetrik olasılık,
 2.3.1.2.6.1.1.1/3-4
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.6.1.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı durumlu bağımsız
 simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.4.1.1/4-5
 toplam düzgün simetrik olasılık,
 2.3.1.2.6.1.2.1/3-4
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.6.1.2.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı durumlu bağımlı
 simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.4.2.1/4-5
 toplam düzgün simetrik olasılık,
 2.3.1.2.6.1.3.1/3-4
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.6.1.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımsız-bağımlı durumlu
 bağımlı simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.2.1.1/6
 toplam düzgün simetrik olasılık,
 2.3.1.2.6.2.1.1/3-4
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.6.2.1.1/9

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımsız-bağımlı durumlu

bağımsız simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.2.2.1/6
 toplam düzgün simetrik olasılık,
 2.3.1.2.6.2.2.1/3-4

toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.6.2.2.1/9

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımsız-bağımlı durumlu
 bağımlı simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.4.3.1/4-5
 toplam düzgün simetrik olasılık,
 2.3.1.2.6.4.3.1/3-4
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.6.4.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı-bir bağımsız durumlu
 bağımsız simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.4.1.1/4-5
 toplam düzgün simetrik olasılık,
 2.3.1.2.6.4.1.1/3-4
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.6.4.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı-bir bağımsız durumlu
 bağımsız simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.4.2.1/4-5
 toplam düzgün simetrik olasılık,
 2.3.1.2.6.4.2.1/3-4
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.6.4.2.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı-bir bağımsız durumlu
 bağımlı simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.4.3.1/4-5
 toplam düzgün simetrik olasılık,
 2.3.1.2.6.4.3.1/3-4
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.6.4.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı-bağımsız durumlu
 simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.6.1.1/4-5
 toplam düzgün simetrik olasılık,
 2.3.1.2.6.6.1.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.6.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.6.2.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.6.2.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.6.2.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.6.3.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.6.3.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.6.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.7.1.1/6
toplam düzgün simetrik olasılık, 2.3.1.2.6.7.1.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.7.1.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.7.2.1/6
toplam düzgün simetrik olasılık, 2.3.1.2.6.7.2.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.7.2.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.6.7.3.1/4-5
toplam düzgün simetrik olasılık, 2.3.1.2.6.7.3.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.6.7.3.1/6

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

simetrik olasılık, 2.3.1.1.9.1.1.1/7-8
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.9.1.1.1/8

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 simetrik olasılık, 2.3.1.1.9.2.1/7-8
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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 simetrik olasılık, 2.3.1.1.9.1.3.1/7-8
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.9.1.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

herhangi bir ve son duruma bağlı simetrik olasılık, 2.3.1.1.9.2.1.1/12
toplam düzgün olmayan simetrik olasılık, 2.3.1.3.9.2.1.1/13

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

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Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

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Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

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Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.9.4.1.1/7-8
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Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı-bir bağımsız durumlu
 bağımsız simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre
 herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.4.2.1/7-8
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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

simetrik olasılık, 2.3.1.1.9.4.3.1/7-8
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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

simetrik olasılık, 2.3.1.1.9.4.4.1/7-8
 toplam düzgün olmayan simetrik
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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

simetrik olasılık, 2.3.1.1.9.6.2.1/7-8
 toplam düzgün olmayan simetrik
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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

simetrik olasılık, 2.3.1.1.9.6.3.1/7-8
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.9.6.3.1/13

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

simetrik olasılık, 2.3.1.1.9.7.1.1/12

toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.9.7.1.1/13

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

simetrik olasılık, 2.3.1.1.9.7.2.1/12
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.9.7.2.1/13

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımsız-bağımsız durumlu
 bağımlı simetrisinin ilk herhangi bir ve son
 durumunun bulunabileceği olaylara göre
 herhangi bir ve son duruma bağlı

simetrik olasılık, 2.3.1.1.9.7.3.1/8
 toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.9.7.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı-bağımsız durumlu
 simetrisinin ilk herhangi bir ve son durumunun
 bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.1.1.1/5
 toplam düzgün simetrik olasılık,
 2.3.1.2.7.1.1.1/3-4

toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.7.1.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı durumlu bağımsız
 simetrisinin ilk herhangi iki ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.1.2.1/5
 toplam düzgün simetrik olasılık,
 2.3.1.2.7.1.2.1/3-4

toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.7.1.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımlı durumlu bağımlı
 simetrisinin ilk herhangi iki ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.1.3.1/5
 toplam düzgün simetrik olasılık,
 2.3.1.2.7.1.3.1/3-4

toplam düzgün olmayan simetrik
 olasılık, 2.3.1.3.7.1.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
 dizilimsiz bağımsız-bağımlı durumlu
 simetrisinin ilk herhangi iki ve son
 durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.2.1.1/7

toplam düzgün simetrik olasılık, 2.3.1.2.7.2.1.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.7.2.1.1/12

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre simetrik olasılık, 2.3.1.1.7.2.2.1/7

toplam düzgün simetrik olasılık, 2.3.1.2.7.2.2.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.7.2.2.1/12

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre simetrik olasılık, 2.3.1.1.7.2.3.1/5

toplam düzgün simetrik olasılık, 2.3.1.2.7.2.3.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.7.2.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre simetrik olasılık, 2.3.1.1.7.4.1.1/5

toplam düzgün simetrik olasılık, 2.3.1.2.7.4.1.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.7.4.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre simetrik olasılık, 2.3.1.1.7.4.2.1/5

toplam düzgün simetrik olasılık, 2.3.1.2.7.4.2.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.7.4.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre simetrik olasılık, 2.3.1.1.7.4.3.1/5

toplam düzgün simetrik olasılık, 2.3.1.2.7.4.3.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.7.4.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

simetrik olasılık, 2.3.1.1.7.6.1.1/5

toplam düzgün simetrik olasılık, 2.3.1.2.7.6.1.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.7.6.1.1/12

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre simetrik olasılık, 2.3.1.1.7.6.2.1/5

toplam düzgün simetrik olasılık, 2.3.1.2.7.6.2.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.7.6.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre simetrik olasılık, 2.3.1.1.7.6.3.1/5

toplam düzgün simetrik olasılık, 2.3.1.2.7.6.3.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.7.6.3.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre simetrik olasılık, 2.3.1.1.7.7.1.1/7

toplam düzgün simetrik olasılık, 2.3.1.2.7.7.1.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.7.7.1.1/12

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre simetrik olasılık, 2.3.1.1.7.7.2.1/7

toplam düzgün simetrik olasılık, 2.3.1.2.7.7.2.1/3-4

toplam düzgün olmayan simetrik olasılık, 2.3.1.3.7.7.2.1/12

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre simetrik olasılık, 2.3.1.1.7.7.3.1/5

toplam düzgün simetrik olasılık,
2.3.1.2.7.7.3.1/3-4

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.7.7.3.1/8

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

simetrik olasılık,
2.3.1.1.10.1.1.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.1.1.1/13

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

simetrik olasılık,
2.3.1.1.10.1.2.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.1.2.1/13

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

simetrik olasılık,
2.3.1.1.10.1.3.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.1.3.1/13

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

simetrik olasılık,
2.3.1.1.10.2.1.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.2.1.1/23

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

simetrik olasılık,
2.3.1.1.10.2.2.1/22

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.2.2.1/23

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

simetrik olasılık,
2.3.1.1.10.2.3.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.2.3.1/13

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

simetrik olasılık,
2.3.1.1.10.4.1.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.4.1.1/23

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

simetrik olasılık,
2.3.1.1.10.4.2.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.4.2.1/23

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

simetrik olasılık,
2.3.1.1.10.4.3.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.4.3.1/23

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

simetrik olasılık,
2.3.1.1.10.6.1.1/12-13

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.6.1.1/23

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

simetrik olasılık,
2.3.1.1.10.6.2.1/12-13
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.6.2.1/23

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
simetrik olasılık,
2.3.1.1.10.6.3.1/12-13
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.6.3.1/23

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
simetrik olasılık,
2.3.1.1.10.7.1.1/22
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.7.1.1/23

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
simetrik olasılık,
2.3.1.1.10.7.2.1/22
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.7.2.1/23

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
simetrik olasılık,
2.3.1.1.10.7.3.1/12-13
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.10.7.3.1/13

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
simetrik olasılık,
2.3.1.1.11.1.1.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.1.1.1/17

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı
simetrik olasılık,
2.3.1.1.11.2.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.1.2.1/17

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı
simetrik olasılık,
2.3.1.1.11.3.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.1.3.1/17

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
simetrik olasılık,
2.3.1.1.11.2.1.1/29
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.2.1.1/30

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımsız simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı
simetrik olasılık,
2.3.1.1.11.2.2.1/29
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.2.2.1/30

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
simetrik olasılık,
2.3.1.1.11.2.3.1/16
toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.2.3.1/17

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

simetrik olasılık,
2.3.1.1.11.4.1.1/16

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.4.1.1/30

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumda
bağımsız simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.4.2.1/16

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.4.2.1/30

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumda
bağımlı simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.4.3.1/16

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.4.3.1/30

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumda
simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.6.1.1/16

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.6.1.1/30

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumda
bağımsız simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.6.2.1/16

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.6.2.1/30

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumda
bağımlı simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.6.3.1/16

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.6.3.1/30

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumda
simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.7.1.1/29

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.7.1.1/30

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumda
bağımsız simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.7.2.1/29

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.7.2.1/30

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumda
bağımlı simetrisinin ilk herhangi iki ve son
durumunun bulunabileceği olaylara göre
herhangi iki ve son durumuna bağlı

simetrik olasılık,
2.3.1.1.11.7.3.1/16

toplam düzgün olmayan simetrik
olasılık, 2.3.1.3.11.7.3.1/17

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 dağılımlarında, simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı düzgün olmayan simetrik olasılığın, tanım ve eşitliklerinden oluşmaktadır.

VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu olasılığının ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı düzgün olmayan simetrik olasılık kitabında, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlarda, simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı 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. Eşitlik ve tanımların üretilmesinde dış kaynak kullanılmamıştır.

GÜLDÜNYA