```
DSum[Cs___] := Sum[R₁ @@ c, {c, {Cs}}] +
  Sum[θ[c0, c1], {c0, {Cs}}, {c1, {Cs}}]
lhs = DSum[{1, j, k}, {1, i, k⁺}, {1, i⁺, j⁺},
     {s, m, n}] //. gR₁,ⱼ,ₖ ⋃ gR₁,ᵢ,ₖ⁺ ⋃ gR₁,ᵢ⁺,ⱼ⁺;
rhs = DSum[{1, i, j}, {1, i⁺, k}, {1, j⁺, k⁺},
     {s, m, n}] //. gR₁,ᵢ,ⱼ ⋃ gR₁,ᵢ⁺,ₖ ⋃ gR₁,ⱼ⁺,ₖ⁺;
Simplify[lhs == rhs]
```