

```

PF [n_, σi_,j_] := PF [n, σi,j] = Module [ {p, q, s},
  Flatten@ {σi,j, σj,i, σ̄j,i,
    Table [ {σp,q, σq,p, σ̄p,q, σ̄q,p}, {p, {i, j}}, {q, Range [n] \ {i, j}}],
    Table [ {σp,q, σ̄p,q}, {p, Range [i + 1, n] \ {j}},
      {q, Range [n] \ {i, j, p}}] ] ];

```

```

PF [n_, σ̄i_,j_] := PF [n, σ̄i,j] = PF [n, σi,j] /. σi,j → σ̄i,j

```