

$$\begin{aligned}
& \frac{-3/16[12][34](3|1+4|2)(4|1+2|3)(6|1+2|5)(s_{123}-s_{124})}{(3|1+2|4)\Delta_{12|34|56}^2} + \\
& \frac{-3/8[12][34](4|1+3|2)(4|1+2|3)(6|1+2|5)}{\Delta_{12|34|56}^2} + \\
& \frac{1/4[12][25][34](36)s_{123}(s_{123}-s_{124})}{(3|1+2|4)^2\Delta_{12|34|56}} + \\
& \frac{1/4[12]^2(16)[34](36)[56](s_{123}-s_{124})}{(3|1+2|4)^2\Delta_{12|34|56}} + \\
& \frac{3/8[13]^2(23)(1|3+4|2)(6|1+2|5)(s_{234}-s_{134})}{(12)(2|3+4|1)(3|1+2|4)\Delta_{12|34|56}} + \\
& \frac{1/4[14][15](26)(1|3+4|2)(4|1+2|3)(s_{234}-s_{134})}{(12)(2|3+4|1)(3|1+2|4)\Delta_{12|34|56}} + \\
& \frac{1/2[24][45](3|1+2|5)s_{123}(s_{123}-s_{124})}{(12)[56](3|1+2|4)^3} + \\
& \frac{1/2[12](14)^2[14][15](16)[34]}{(12)(3|1+2|4)\Delta_{12|34|56}} + \\
& \frac{-3/4[12](13)[13][23](26)(1|2+6|5)}{(12)(3|1+2|4)\Delta_{12|34|56}} + \\
& \frac{[34](13)(6|1+2|5)[12](-1/2[13](14)+1/4[23](24))}{(12)(3|1+2|4)\Delta_{12|34|56}} + \\
& \frac{(6|1+2|5)(s_{34}-s_{56})(-1/4[13](14)[24]+1/213[23]+1/4[23](24)[24]+3/8(23)[23]^2)}{(12)(3|1+2|4)\Delta_{12|34|56}} + \\
& \frac{(16)(4|1+2|3)(s_{34}-s_{56})(-1/4[12][45]+3/4[14][25])}{(12)(3|1+2|4)\Delta_{12|34|56}} + \\
& \frac{-1/2[12](13)[13](16)[35](s_{34}-s_{56})}{(12)(3|1+2|4)\Delta_{12|34|56}} + \\
& \frac{[13](26)[25](s_{34}-s_{56})(-1/2(14)[24]-3/4(13)[23])}{(12)(3|1+2|4)\Delta_{12|34|56}} + \\
& \frac{(s_{123}-s_{124})(-5/4[13][23][25](36)\dots\langle 3 \text{ terms} \rangle\dots-1[12][23][45](46))}{(3|1+2|4)\Delta_{12|34|56}} + \\
& \frac{(4|1+2|3)(2|14)[24][25](46)\dots\langle 4 \text{ terms} \rangle\dots-1/2[12][14](16)[25])}{(3|1+2|4)\Delta_{12|34|56}} + \\
& \frac{(6|1+2|5)(1|13)[23][24](34)\dots\langle 3 \text{ terms} \rangle\dots+13/8[12](23)[23]^2)}{(3|1+2|4)\Delta_{12|34|56}} + \\
& \frac{1/2[12][13](14)[24][25](26)\dots\langle 10 \text{ terms} \rangle\dots-1/4[13](23)[23][24][25](46)}{(3|1+2|4)\Delta_{12|34|56}} + \\
& \frac{6[12](24)^2[25]^2(56)(2|3+4|2)}{(23)(34)(2|5+6|2)^3} + \\
& \frac{-3/2[12](24)^2[25]^2(1|5+6|1)^2}{(23)(34)[56](2|5+6|2)^3} + \\
& \frac{6(34)^3[34]^2[35]^2(56)}{(12)(23)(3|5+6|3)^3} + \\
& \frac{-3/2(34)^2[34][35]^2(4|5+6|4)^2}{(12)(23)[56](3|5+6|3)^3} + \\
& \frac{-2[23](24)(26)(6|1+5|2)}{(12)(23)(56)(2|3+4|2)} + \\
& \frac{-1[13](14)(26)(6|1+5|2)}{(12)(23)(56)(2|3+4|2)} + \\
& \frac{-1/2[12](14)^2(26)[34](6|1+5|2)}{(12)(23)(56)(1|3+4|2)(2|3+4|2)} + \\
& \frac{1/2[13]^2(26)(34)(6|1+5|2)}{(23)(56)(2|3+4|1)(2|3+4|2)} + \\
& \frac{(34)[35](4|5+6|4)^2[13](5/8(34)[45]-2(36)[56])}{(12)(23)[56](3|2+4|1)(3|5+6|3)^2} + \\
& \frac{(34)^2[35][13](1/8(45)^2[45]^3\dots\langle 3 \text{ terms} \rangle\dots+8[34](36)[56][56]^2)}{(12)(23)[56](3|2+4|1)(3|5+6|3)^2} + \\
& \frac{(46)[35](34)[13](1/4(36)(46)^2[46]^3+3/4(35)[45](46)^2[46]^2+1/4(35)(45)^2[45]^3+3/4(35)(45)[45]^2(46)[46])}{(12)(23)(56)[56](3|2+4|1)(3|5+6|3)^2} + \\
& \frac{(12)[12](1/4(13)[14][15](16)\dots\langle 5 \text{ terms} \rangle\dots+3/2(13)[13](36)[45])}{(12)(23)(3|1+2|4)^2} + \\
& \frac{[12](1/2(12)^2[12][14](23)[25](36)\dots\langle 10 \text{ terms} \rangle\dots-1/4(12)[12](23)(34)[34](36)[45])}{(12)(23)(3|2+4|1)(3|1+2|4)^2} + \\
& \frac{[45][12](1/2(23)^4[23]^2[25]\dots\langle 8 \text{ terms} \rangle\dots-1/2(13)^2[13][14](23)(24)[25])}{(12)(23)[56](3|2+4|1)(3|1+2|4)^2} + \\
& \frac{(24)^2[15](1/4[13](24)[24](34)[45]\dots\langle 19 \text{ terms} \rangle\dots-1/4(12)^2[12]^2[15])}{(12)(23)(34)[56](2|3+4|1)^2} + \\
& \frac{(24)^2[15][12](1/4(24)(34)^2[34]^2[45]\dots\langle 4 \text{ terms} \rangle\dots+1/4(12)^3[12]^2[15])}{(12)(23)(34)[56](2|3+4|1)^2(2|5+6|2)} + \\
& \frac{[25](-29/4(12)^2[13]^2[25](34)^2\dots\langle 30 \text{ terms} \rangle\dots+5/2[23](24)^2(34)^2[34][45])}{(12)(23)(34)[56](2|5+6|2)^2} + \\
& \frac{(26)(7/4(12)^2[12]^3(14)(46)\dots\langle 4 \text{ terms} \rangle\dots+7/4[23]^2(24)(34)^2[34](36))}{(12)(23)(34)(56)(2|5+6|2)^2} + \\
& \frac{(24)^2[25][12](-3/4(24)(34)^2[34]^2[45]\dots\langle 4 \text{ terms} \rangle\dots-3/4(12)^3[12]^2[15])}{(12)(23)(34)[56](2|3+4|1)(2|5+6|2)^2} + \\
& \frac{[12](46)(26)(24)(1/4(12)^3[12]^3\dots\langle 4 \text{ terms} \rangle\dots-1(23)[23](24)[24](34)[34])}{(12)(23)(34)(56)(2|3+4|1)(2|5+6|2)^2} + \\
& \frac{(46)[12](14)(1/2(34)[35]+1/2(24)[25])}{(12)(23)(34)(4|1+3|2)} + \\
& \frac{[23](34)(46)(1/2[23](24)(36)-1(23)[23](46)+1/2(34)[34](46))}{(12)(23)(34)(56)(4|1+3|2)} + \\
& \frac{(34)[23](24)[25](1(34)[35]+1/2(24)[25])}{(12)(23)(34)[56](4|1+3|2)} + \\
& \frac{-1/2[12]^2(14)^3[45](46)}{(12)(23)(34)(1|3+4|2)(4|1+3|2)} + \\
& \frac{(46)(1/2[12][13](14)^3(24)(36)\dots\langle 4 \text{ terms} \rangle\dots-1/2(12)[23]^3(34)^2(36))}{(12)(23)(34)(56)(1|3+4|2)(4|1+3|2)} + \\
& \frac{(14)^3[12][15][25](1/2(14)[14]+1/2(13)[13]+1/2(12)[12])}{(12)(23)(34)[56](1|3+4|2)(4|1+3|2)} + \\
& \frac{1/2(13)[13](14)^3[14]^2[25](46)\dots\langle 134 \text{ terms} \rangle\dots-1[13](14)^3[14][24](34)[45](46)}{(12)(23)(34)(56)[56](1|3+4|2)(2|5+6|2)} + \\
& \frac{1/2(12)[13]^3(14)(34)^2(36)[45]\dots\langle 41 \text{ terms} \rangle\dots-1(12)[13]^2(34)^3[34][35](36)}{(12)(23)(34)(56)[56](2|3+4|1)(2|5+6|2)} + \\
& \frac{-15/4[13](14)(24)[25](36)\dots\langle 12 \text{ terms} \rangle\dots+1(13)[13](34)[35](46)}{(12)(23)(34)(3|5+6|3)} + \\
& \frac{(34)[35](-13/2(14)[14](34)[35]\dots\langle 4 \text{ terms} \rangle\dots-5(12)[12](24)[25])}{(12)(23)(34)[56](3|5+6|3)} + \\
& \frac{3/2[13](14)(34)(34)(36)(46)}{(12)(23)(34)(56)(3|5+6|3)} + \\
& \frac{45/4[12](14)[14](24)(34)[35](36)\dots\langle 7 \text{ terms} \rangle\dots-7[14](24)[24](34)^2[35](46)}{(12)(23)(34)(3|2+4|1)(3|5+6|3)} + \\
& \frac{(34)^2[35](-2(12)^2[12]^2[15]\dots\langle 7 \text{ terms} \rangle\dots-3/2(13)[13]^2(23)[25])}{(12)(23)(34)[56](3|2+4|1)(3|5+6|3)} + \\
& \frac{(34)(46)(36)(-9/4[12](24)(34)[34]^2\dots\langle 4 \text{ terms} \rangle\dots+3/4[13](23)^2[23]^2)}{(12)(23)(34)(56)(3|2+4|1)(3|5+6|3)} + \\
& \frac{-1/4(12)^2[12][13][25](34)(36)\dots\langle 17 \text{ terms} \rangle\dots+3/4[23](24)^2[24](34)(36)[45]}{(12)(23)(34)(3|5+6|3)(3|1+2|4)} + \\
& \frac{[35](34)(-1(13)[13](23)[24](34)[35]\dots\langle 5 \text{ terms} \rangle\dots+1/2(23)^2[23](24)[24][25])}{(12)(23)(34)[56](3|5+6|3)(3|1+2|4)} + \\
& \frac{-1/4(23)^3[23]^3(36)(46)}{(12)(23)(34)(56)(3|5+6|3)(3|1+2|4)} + \\
& \frac{(13)[35](46)(23)^2[12]^2(1/2(13)[13]+1(23)[23])}{(12)(23)(34)(3|2+4|1)(3|5+6|3)(3|1+2|4)} + \\
& \frac{[45](34)^3[35](3/4[14](24)^2[24]^2+3/2(14)[14]^2(24)[24]+3/4(14)^2[14]^3-3/4(12)[12]^2(23)[34])}{(12)(23)(34)[56](3|2+4|1)(3|5+6|3)(3|1+2|4)} + \\
& \frac{(36)(-1/2(13)^3[13]^4(34)(36)\dots\langle 8 \text{ terms} \rangle\dots+3/2[12](13)[13](23)^2[23](24)[24](46))}{(12)(23)(34)(56)(3|2+4|1)(3|5+6|3)(3|1+2|4)} + \\
& \frac{(34)^2(36)[45](-1/4[13](34)^3[34]^3-3/4[12](24)(34)^2[34]^3+1/4(12)^3[12]^3[13]+3/4(12)[12]^2(24)(34)[34]^2)}{(12)(23)(34)(56)[56](3|2+4|1)(3|5+6|3)(3|1+2|4)} + \\
& \frac{(14)(233/4(12)[13][24][25](34)(46)\dots\langle 46 \text{ terms} \rangle\dots-5[23](24)[24](34)[45](46))}{(12)(23)(34)(56)[56](1|3+4|2)} + \\
& \frac{-3/2[23][25](36)(s_{14}-s_{23})^2}{(23)(56)[56](1|3+4|2)(3|1+2|4)} + \\
& \frac{1[13][15](26)(1|3+4|2)}{(12)(2|3+4|1)(3|1+2|4)} + \\
& \frac{-3/2(13)[13]^2(6|1+2|5)}{(12)(2|3+4|1)(3|1+2|4)} + \\
& \frac{[13](-3/4(13)(14)[14][15](24)(46)\dots\langle 34 \text{ terms} \rangle\dots-5(12)^2[12][15](34)(46))}{(12)(23)(34)(56)[56](2|3+4|1)} + \\
& \frac{(24)[12](-9/4(24)^2[24][25](26)\dots\langle 10 \text{ terms} \rangle\dots-3/4(24)^2[24][45](46))}{(12)(23)(34)(56)[56](2|3+4|1)} + \\
& \frac{[13][45](1/2(12)[13][15](34)^2+1/2[12](13)[15](24)^2+1/2[12](24)^2(34)[45])}{(12)(23)[56](2|3+4|1)(3|2+4|1)} + \\
& \frac{1/2[12]^2(24)^3[45]^2}{(12)(23)[56](2|3+4|1)(3|2+4|1)} + \\
& \frac{[12][24](23)(46)(1/2[23](26)+1/2[34](46))}{(12)(56)(3|2+4|1)(3|1+2|4)} + \\
& \frac{-3/4[12][45](46)(3|1+2|3)s_{123}}{(12)(56)[56](3|2+4|1)(3|1+2|4)} + \\
& \frac{18[13](14)(24)[25](36)\dots\langle 22 \text{ terms} \rangle\dots-51/4(12)[12](34)[35](46)}{(12)(23)(34)(56)[56]} + \\
& \frac{23/4[12](24)^2[24][25](26)\dots\langle 46 \text{ terms} \rangle\dots+13[12](24)^2[24][45](46)}{(12)(23)(56)[56](3|2+4|1)} + \\
& \frac{-1/2(12)^2[12][13][25](34)(36)\dots\langle 84 \text{ terms} \rangle\dots-17/4(13)[13](23)[23](34)[35](36)}{(12)(23)(34)(56)[56](3|1+2|4)} + \\
& \frac{[45](-21/4[14](24)[24](34)^2[35]\dots\langle 16 \text{ terms} \rangle\dots+1/4[13](34)^3[34][45])}{(12)(23)[56](3|2+4|1)(3|1+2|4)} + \\
& \frac{(36)(-1/2(12)[13]^2[24](34)^2[45]\dots\langle 17 \text{ terms} \rangle\dots-3/2(13)[13]^2(23)^2[23][25])}{(12)(23)(56)[56](3|2+4|1)(3|1+2|4)}
\end{aligned}$$