

$$\begin{aligned}
& \frac{3(s_{124}-s_{134})(s_{24}-s_{13})(34)(26)[35][13]}{(2|1+4|3)^3\Delta_{14|23|56}} + \\
& \frac{(24)(26)[35](27/2(13)[13]+3/2(34)[34])}{(12)(2|1+4|3)^3} + \\
& \frac{1(46)(34)(s_{13}+s_{34})(s_{13}-s_{34})[35]}{(14)\Delta_{14|23|56}(2|1+4|3)^2} + \\
& \frac{(46)(s_{23}-s_{56})(24)(1(13)[25][13]-1/2(13)[35][12]-1/2(34)[45][23])}{(14)\Delta_{14|23|56}(2|1+4|3)^2} + \\
& \frac{(24)(34)(s_{12}+s_{13}+s_{24}+s_{34})(36)(-1/2[35](24)[24]+1/2[45][23](24)-1/2(34)[34][35])}{(14)(23)\Delta_{14|23|56}(2|1+4|3)^2} + \\
& \frac{(24)[13](s_{14}-s_{56})(36)^2(1(13)[13]-1/2(24)[24]+1/2(34)[34])}{(23)(56)\Delta_{14|23|56}(2|1+4|3)^2} + \\
& \frac{(46)(-1[23][13](36)(23)(24)[24]\dots\langle 4 \text{ terms} \rangle\dots-1/4(46)(13)^2[13]^2[14])}{(56)\Delta_{14|23|56}(2|1+4|3)^2} + \\
& \frac{-1/2[23]^2(36)^2(23)(24)[13]}{(56)\Delta_{14|23|56}(2|1+4|3)^2} + \\
& \frac{(s_{14}-s_{23})(46)(9/4(36)[24](24)[13]\dots\langle 5 \text{ terms} \rangle\dots-11/4[34](24)(36)[12])}{(56)\Delta_{14|23|56}(2|1+4|3)^2} + \\
& \frac{(s_{124}-s_{134})(29/2(46)[25](25)[15]\dots\langle 3 \text{ terms} \rangle\dots+6(46)[25](24)[14])}{(2|1+4|3)^2\Delta_{14|23|56}} + \\
& \frac{4(46)(23)(45)[25][35][14]\dots\langle 41 \text{ terms} \rangle\dots+2[23](36)(34)(24)[45][13]}{(2|1+4|3)^2\Delta_{14|23|56}} + \\
& \frac{-53/12(26)(13)^2[35](24)^2}{(12)^2(14)(23)(2|1+4|3)^2} + \\
& \frac{(13)(24)(26)^2(-5/3(26)[26]-5/3[25](25))}{(12)^2(23)(56)(2|1+4|3)^2} + \\
& \frac{-20/3(13)[35](24)^2(36)\dots\langle 9 \text{ terms} \rangle\dots+29/3[56](23)(12)(46)^2}{(12)(14)(23)(2|1+4|3)^2} + \\
& \frac{(46)(-1(46)(23)(13)(24)[34]\dots\langle 12 \text{ terms} \rangle\dots-5/3(14)(36)(24)[45](25))}{(12)(14)(23)(56)(2|1+4|3)^2} + \\
& \frac{(24)(36)(-2[34](24)(36)+5/3(26)^2[26]+5/3(26)[25](25))}{(12)(23)(56)(2|1+4|3)^2} + \\
& \frac{2[23](6|1+4|5)(13)(24)(4|2+3|1)(3|1+4|2)}{(14)\Delta_{14|23|56}^2(2|1+4|3)} + \\
& \frac{(46)(s_{23}-s_{56})(3|1+4|2)(4|2+3|1)(3/4(13)[35]+7/8[56](16))}{(14)\Delta_{14|23|56}^2(2|1+4|3)} + \\
& \frac{(24)(46)(s_{23}-s_{56})(3|1+4|2)(7/8[56][25](56)-1/2(34)[45][23]+7/8[56][23](36))}{(14)\Delta_{14|23|56}^2(2|1+4|3)} + \\
& \frac{-3/8(13)(26)[15](s_{25}+s_{26}+s_{35}+s_{36})(4|2+3|1)(3|1+4|2)}{(23)\Delta_{14|23|56}^2(2|1+4|3)} + \\
& \frac{3/8(3|1+2|4)(46)(26)(4|2+3|1)(s_{25}+s_{26}+s_{35}+s_{36})(3|1+4|2)}{(23)(56)(2|1+4|3)\Delta_{14|23|56}^2} + \\
& \frac{(4|2+3|1)(3|1+4|2)(1/16(16)(12)[15][12]\dots\langle 8 \text{ terms} \rangle\dots+77/16(46)(24)[24][45])}{\Delta_{14|23|56}^2(2|1+4|3)} + \\
& \frac{(46)(s_{123}-s_{234})(3|1+4|2)(3/4(23)[35][12]+7/4(13)[15][13])}{\Delta_{14|23|56}^2(2|1+4|3)} + \\
& \frac{(3|1+4|2)(-7/4(24)^2[12](26)[25][24]\dots\langle 9 \text{ terms} \rangle\dots-1/2(46)(13)(24)[12][35][14])}{\Delta_{14|23|56}^2(2|1+4|3)} + \\
& \frac{-5/4(s_{124}-s_{134})(36)(4|1+3|2)(4|2+3|1)[45]}{(2|1+4|3)\Delta_{14|23|56}^2} + \\
& \frac{-1/4(46)^2(s_{23}-s_{56})(34)(13)(2|1+4|2)}{(14)^2(23)(56)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{-1/2(46)^2[23](13)(24)(3|1+4|2)}{(14)^2(56)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{-1/2(46)^2[23](s_{23}-s_{56})(34)(13)}{(14)^2(56)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{(34)(46)(2(34)[35][24]\dots\langle 3 \text{ terms} \rangle\dots+8(12)[25][12])}{(14)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{(34)(46)(1/4(34)^2[45][34]+1/2(34)(13)[45][13]+3/4(34)(12)[25][14]-1/4(13)^2[15][13])}{(14)(23)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{(34)(46)(36)(1(13)[24](24)[13]-1(34)(12)[34][12])}{(14)(23)(56)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{(34)(s_{23}-s_{56})(3/4[25](24)(36)-1/4(23)[25](46)+1/2(34)[35](36))}{(14)(23)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{(13)(s_{23}-s_{56})(46)(-1/2(34)(36)[13]+1/2(34)(46)[14]+1/2(23)(46)[12])}{(14)(23)(56)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{-1/4(34)^2[25][35](s_{23}-s_{56})}{(14)[56]\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{(34)(1/4(36)[25](24)[14]\dots\langle 5 \text{ terms} \rangle\dots+1/4(34)[45][14](46))}{(23)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{(36)(34)(5/4(36)[24](24)[13]+7/4(46)[24](24)[14]+3/4(34)(46)[34][14]-5/4[34](24)(36)[12])}{(23)(56)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{-1/4(34)^3[45][35][14]}{(23)[56]\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{-1/2(34)[15](s_{14}-s_{56})(36)}{(23)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{-3/2(46)(36)(34)(s_{14}-s_{56})[14]}{(23)(56)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{[12](46)(-11/4(34)[34](36)\dots\langle 3 \text{ terms} \rangle\dots-1(13)(36)[13])}{(56)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{1/4(14)(36)^2[13][12]}{(56)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{1/4(s_{14}-s_{23})(46)(36)[12]}{(56)\Delta_{14|23|56}(2|1+4|3)} + \\
& \frac{1/2(35)(46)[25][15]+27/2(34)[25](36)[13]-18(34)[35](36)[12]}{(2|1+4|3)\Delta_{14|23|56}} + \\
& \frac{(26)(-5/3(23)(13)[35][13]+5/3[45](24)^2[24])}{(12)^2[34](2|3+4|1)(2|1+4|3)} + \\
& \frac{-5/3(26)^2(24)^2[24]^2}{(12)^2[34](56)(2|3+4|1)(2|1+4|3)} + \\
& \frac{10/3(26)^2(13)[24][13]^2}{(12)[34]^2(56)(2|3+4|1)(2|1+4|3)} + \\
& \frac{(26)(7/3(23)[25](24)[14]\dots\langle 3 \text{ terms} \rangle\dots+1/3(23)(12)[15][12])}{(12)(23)[34](2|3+4|1)(2|1+4|3)} + \\
& \frac{(26)(3/4(23)^2(46)[24][13]-2(36)(23)(34)[34][13]-2(34)(12)[14]^2(46)+3/4(36)[24](24)^2[14])}{(12)(23)[34](56)(2|3+4|1)(2|1+4|3)} + \\
& \frac{83/12(36)^2(34)(12)^2[36][35]\dots\langle 48 \text{ terms} \rangle\dots+15/4(14)(13)(24)(26)[56][45](56)}{(12)^2(14)(23)[34](56)[56](2|1+4|3)} + \\
& \frac{(26)^2(13)[24](-19/12(26)[36]-19/12[35](25))}{(12)^2(23)[34]^2(56)(2|1+4|3)} + \\
& \frac{-1(6|1+5|3)(13)(24)(16)}{(12)^2(56)(1|2+4|3)(2|1+4|3)} + \\
& \frac{-2/3(46)^2[34](13)^2}{(12)(14)(56)(1|2+3|4)(2|1+4|3)} + \\
& \frac{-1[35]^2(24)[24](1|3+4|2)}{(12)[23][34][56](1|2+4|3)(2|1+4|3)} + \\
& \frac{1[35]^2(14)(24)[24]^2}{(12)[23][34][56](1|2+4|3)(2|1+4|3)} + \\
& \frac{-1(6|1+5|3)[24](24)(16)}{(12)[34](56)(1|2+4|3)(2|1+4|3)} + \\
& \frac{2/3(3|1+4|3)(13)^2(46)^2}{(14)^2(23)(56)(1|2+3|4)(2|1+4|3)} + \\
& \frac{-1(13)^2(s_{13}-s_{24})(46)^2}{(14)^2(23)(56)(1|2+3|4)(2|1+4|3)} + \\
& \frac{-10/3(23)[15]^2(14)[14]}{(12)[34][56](2|3+4|1)^2} + \\
& \frac{2/3[15]^2(3|2+4|1)}{[34][56](2|3+4|1)^2} + \\
& \frac{-3/4(34)[15]^2[14]}{[34][56](2|3+4|1)^2} + \\
& \frac{(26)(-5/3(26)(13)[12]-5/3(13)[14](46)+5/3(36)(24)[24])}{(12)^2[34](56)(2|3+4|1)} + \\
& \frac{(26)(-19/12(34)[45][14]-2/3(23)[45][12]+2/3(23)[25][14])}{(12)(23)[34]^2(2|3+4|1)} + \\
& \frac{[14]^2(26)(19/12(14)(36)-19/12(13)(46))}{(12)(23)[34]^2(56)(2|3+4|1)} + \\
& \frac{(36)(26)(-5/12(34)[14]+5/3(23)(12))}{(12)(23)[34](56)(2|3+4|1)} + \\
& \frac{-1/4(13)^2(24)(46)[45]\dots\langle 6 \text{ terms} \rangle\dots+47/12(36)(34)(13)(12)[35]}{(12)^2(14)(23)[34](56)[56]} + \\
& \frac{(13)^2(1(46)(13)(24)[45]-2/3[56](26)(46)(13)+1[56](26)(14)(36)-1[45](14)(24)(36))}{(12)^2(14)(23)(56)[56](1|2+3|4)} + \\
& (123456 \rightarrow \overline{432165}) + \\
& \frac{5/2(s_{24}-s_{13})(s_{124}-s_{134})(26)(4|2+3|1)[35](3|1+4|2)}{\Delta_{14|23|56}^2(2|1+4|3)^2} + \\
& \frac{35/64(s_{123}-s_{234})(s_{124}-s_{134})(6|1+4|5)(4|2+3|1)(s_{25}+s_{26}+s_{35}+s_{36})(3|1+4|2)}{\Delta_{14|23|56}^3(2|1+4|3)}
\end{aligned}$$