

$$\begin{aligned}
& \frac{5/9(13+4|2|(6|1+3|5|)(s_{23}-s_{14})(s_{124}-s_{234})}{\Delta_{13|24|56}(1|2+4|3|^2(2|1+3|4|)} \\
& -\frac{1/3[14](24)[25](13)[12][35](s_{24}-s_{56})}{[13][56](1|2+4|3|(2|1+3|4|)\Delta_{13|24|56}}+ \\
& \frac{1/9[34](24)(6|1+3|5|(13)[12]^2}{[13](1|2+4|3|(2|1+3|4|)\Delta_{13|24|56}}+ \\
& \frac{10/9[14](14)(6|1+3|5|[12](s_{24}-s_{56})}{[13](1|2+4|3|(2|1+3|4|)\Delta_{13|24|56}}+ \\
& \frac{1(12)[12]^2(6|1+3|5|(s_{24}-s_{56})}{[13](1|2+4|3|(2|1+3|4|)\Delta_{13|24|56}}+ \\
& -\frac{4/3[14](13)[12](46)[35](s_{24}-s_{56})}{[13](1|2+4|3|(2|1+3|4|)\Delta_{13|24|56}}+ \\
& -\frac{1/3(34)(14)[24]^2(36)(26)[13]}{(56)\Delta_{13|24|56}(1|2+4|3|(2|1+3|4|)}+ \\
& (123456 \rightarrow 432165)+ \\
& \frac{-4/3(16)[15][12]^3}{[13][14][23](1|2+3|1|(1|5+6|1|)}+ \\
& \frac{4/3[15](13)^2[12](46)}{(12)(14)[14](23)[23](1|2+3|1|)}+ \\
& \frac{4/3[15](13)[45][12]^2}{(12)[14]^2[23][56](1|2+3|1|)}+ \\
& \frac{8/3[15]^2(13)[12]}{(12)[13][14][56](1|2+3|1|)}+ \\
& \frac{20/3[15](13)(3|1+2|5|[12]}{(12)[14](23)[23][56](1|2+3|1|)}+ \\
& \frac{4/3(34)[24]^2(46)^2}{(14)^2[14][34](56)(4|2+3|4|)}+ \\
& \frac{-8/3(34)^3(46)[45]}{(14)^2[14](23)(24)(4|2+3|4|)}+ \\
& \frac{(34)^2(46)(8[34][45][12]-8[24][14][35])}{(14)[14](23)[23](24)[34](4|2+3|4|)}+ \\
& \frac{(34)(46)(16/3(34)[45][14]-20/3(23)[45][12]+20/3[25](23)[14]-20/3[15](13)[14])}{(14)[14](23)(24)[34](4|2+3|4|)}+ \\
& \frac{(34)(46)(-20/3(36)(12)[12][14] \dots \langle 3 \text{ terms} \rangle \dots +20/3(23)[12][24](26))}{(14)[14](23)(24)[34](56)(4|2+3|4|)}+ \\
& \frac{-20/3(34)[24][25](46)[13]}{(14)[14][23](24)[34](4|2+3|4|)}+ \\
& \frac{20/3(34)[12]^2(16)(46)}{(14)[14][23](24)(56)(4|2+3|4|)}+ \\
& \frac{-4/3(34)^2(46)^2(3|1+2|4|)}{(14)^2[14](23)(24)(56)(4|5+6|4|)}+ \\
& \frac{(24)[35]^2(-85415/768(14)[24](24)[14] \dots \langle 3 \text{ terms} \rangle \dots +85415/768[23](24)(23)[24])}{[56](1|2+4|3|(2|1+4|3|^3)}+ \\
& -\frac{8(26)(4|2+3|1)[35](s_{13}-s_{24})(s_{124}-s_{134})}{\Delta_{14|23|56}(2|1+4|3|^3)}+ \\
& \frac{(24)[35]^2(-92761/768[13](13)(23)[34] \dots \langle 4 \text{ terms} \rangle \dots +155065/1728(12)[13](13)[14])}{(12)[34][56](2|1+4|3|^3)}+ \\
& \frac{(16)[35](39079/768[34](14)(24)[12] \dots \langle 6 \text{ terms} \rangle \dots -180881/6912(12)[23](24)[12])}{(1|2+4|3|^2(2|1+4|3|^2)}+ \\
& -\frac{1068013/3456[13](13)^3(24)^3[14]^2[34]^2[35](26) \dots \langle 146 \text{ terms} \rangle \dots -16/3[13](13)(24)(46)(23)^4[34]^3[35][23]}{(12)[14](23)(24)[34](56)[56](1|2+4|3|(2|1+4|3|^2(2|1+3|4|)} \\
& -\frac{18(13)(24)^2(46)[12]^3(12)^3[34]^2[35] \dots \langle 49 \text{ terms} \rangle \dots +10[13]^3(24)(36)[24](12)^4[23][25](34)}{(12)(14)[14](23)[23](24)[34](56)[56](1|2+4|3|(2|1+4|3|^2)}+ \\
& \frac{10/3(6|1+4|5|(4|2+3|1)(s_{13}-s_{24})(s_{124}-s_{134})(s_{25}+s_{26}+s_{35}+s_{36})}{\Delta_{14|23|56}^2(2|1+4|3|^2)}+ \\
& -\frac{16/3(34)(3|1+4|3|(13)(46)[13][35]}{(14)\Delta_{14|23|56}(2|1+4|3|^2)}+ \\
& \frac{(24)(46)(s_{23}-s_{56})(-2(24)(13)[25][14] \dots \langle 6 \text{ terms} \rangle \dots +1/2(34)[24][45](24))}{(14)(23)(2|1+4|3|^2\Delta_{14|23|56}}+ \\
& \frac{-5/3(2|1+4|2|^3(46)^2(s_{23}-s_{56})}{(14)(23)[23](56)(2|1+4|3|^2\Delta_{14|23|56}}+ \\
& \frac{(24)(36)(46)(s_{23}-s_{56})(-3[24]^2(24)^2 \dots \langle 3 \text{ terms} \rangle \dots +3(12)^2[12]^2)}{(14)(23)(56)(2|1+4|3|^2\Delta_{14|23|56}}+ \\
& \frac{16/3(2|1+4|5|(12)[12]^3(26)}{[14]\Delta_{14|23|56}(2|1+4|3|^2)}+ \\
& \frac{[45][13](s_{23}-s_{56})(-5/3(34)^2[24](24)[45][13] \dots \langle 9 \text{ terms} \rangle \dots -16/3[15](24)(13)(12)[12]^2)}{[14](23)[23][56](2|1+4|3|^2\Delta_{14|23|56}}+ \\
& \frac{5/3[15]^2(13)(12)^2[12]^2[13](s_{23}-s_{56})}{[14](23)[23][56](2|1+4|3|^2\Delta_{14|23|56}}+ \\
& \frac{[13][35](s_{23}-s_{56})(-5/3(34)^2[24][45][13] \dots \langle 6 \text{ terms} \rangle \dots +83/6[15](13)^2[12][13])}{[14][23][56](2|1+4|3|^2\Delta_{14|23|56}}+ \\
& \frac{(13)(13)^3[25](s_{23}-s_{56})(-77/6[15](13)-28/3(23)[25])}{[14][23][56](2|1+4|3|^2\Delta_{14|23|56}}+ \\
& \frac{18798401/55296(24)^4[24]^3[12](26)[25] \dots \langle 455 \text{ terms} \rangle \dots -96901/9216[13]^2(13)(24)^2(36)[24]^2[35](34)}{(23)[23](56)[56](2|1+4|3|^2\Delta_{14|23|56}}+ \\
& \frac{(16)[23](-13533557/41472[25](24)+408643/13824[35](34)-15583517/41472[15](14))}{(1|2+4|3|^2(2|1+4|3|)}+ \\
& -\frac{348043393/82944[13]^2(24)(46)[24]^2(23)^2(12)^2[45] \dots \langle 41 \text{ terms} \rangle \dots -13589465/41472[23]^3(23)^5[34][35](26)}{(12)[14](23)(24)[34](56)[56](1|2+4|3|(2|1+4|3|(2|1+3|4|)} \\
& \frac{[34](24)^2[12](-16/3[34][14](13)(36)[35] \dots \langle 4 \text{ terms} \rangle \dots -4[34][24](23)(36)[35])}{(12)[13][14](56)[56](1|2+4|3|(2|1+4|3|(2|1+3|4|)}+ \\
& \frac{8/3(13)^2(24)^2(46)[12][34]^3[35](34) \dots \langle 12 \text{ terms} \rangle \dots -128/3(14)[14](46)[12]^3(12)^4[35]}{(12)(14)[14](23)(23)(24)[34](56)[56](1|2+4|3|(2|1+4|3|)}+ \\
& -\frac{310171/6912[24]^3(26)(24)^4[45] \dots \langle 131 \text{ terms} \rangle \dots +8/3[13]^2(13)(46)(23)(12)[34][45](34)}{(12)[14](23)(24)[34](56)[56](1|2+4|3|(2|1+4|3|)}+ \\
& \frac{4/3[24][23](3|1+4|3|(12)(46)^2}{(14)^2[14][34](56)(1|2+4|3|(2|1+4|3|)}+ \\
& \frac{-8/3(34)[23](3|1+4|3|(12)(36)(46)}{(14)^2[14](23)(56)(1|2+4|3|(2|1+4|3|)}+ \\
& \frac{-8/3(34)[23](13)(12)(46)^2}{(14)^2(23)(56)(1|2+4|3|(2|1+4|3|)}+ \\
& \frac{[45](223173455/82944(12)[13]^2[25](23)^3 \dots \langle 25 \text{ terms} \rangle \dots -30527521/41472[15](24)[14](23)[12](12)^2)}{(12)(23)[34][56](2|3+4|1|(2|1+4|3|(2|1+3|4|)}+ \\
& \frac{(23)[45][13][15](-85415/4608[23](12)(23)-85415/4608(12)^2[12]-85415/1728(13)[34](24))}{(12)[34][56](2|3+4|1|(2|1+3|4|(2|1+4|3|)}+ \\
& \frac{-2513/24(34)[14]^2(26)(46)}{(23)[34](56)(2|3+4|1|(2|1+4|3|)}+ \\
& \frac{[15](2/3(23)^2[12][35]+62/3(34)(23)[14][35]-62/3(34)[15](12)[14]-2/3[15](12)(23)[12])}{(23)[34][56](2|3+4|1|(2|1+4|3|)}+ \\
& \frac{35/24(3|1+4|2|(4|2+3|1)(s_{124}-s_{134})(s_{25}+s_{26}+s_{35}+s_{36})(6|1+4|5|(s_{123}-s_{234})}{\Delta_{14|23|56}^3(2|1+4|3|)}+ \\
& \frac{269457/8192[13](36)[24][34][35](34)^3 \dots \langle 135 \text{ terms} \rangle \dots -31/3(24)(46)[24](23)[12][45][23](34)}{(2|1+4|3|\Delta_{14|23|56}^2)}+ \\
& \frac{-16/3[23](3|1+4|2|(3|1+4|5|(12)(46)(4|2+3|1)}{(14)\Delta_{14|23|56}^2(2|1+4|3|)}+ \\
& \frac{(3|1+4|2|(4|2+3|1)(46)(s_{23}-s_{56})(13/3(13)[35]+7/3(12)[25])}{(14)\Delta_{14|23|56}^2(2|1+4|3|)}+ \\
& \frac{(3|1+4|2|(34)(46)(s_{23}-s_{56})(1(24)[45][23]+7/3(12)[12][35]-7/3(12)[25][13])}{(14)\Delta_{14|23|56}^2(2|1+4|3|)}+ \\
& \frac{-16/3(6|1+4|2|(3|1+4|2|[45](23)(4|2+3|1)[13]}{(14)\Delta_{14|23|56}^2(2|1+4|3|)}+ \\
& \frac{(3|1+4|2|(s_{23}-s_{56})(-7/3(34)[45](36)[13]^2 \dots \langle 4 \text{ terms} \rangle \dots +17/3[45](23)[12](46)[13])}{(14)\Delta_{14|23|56}^2(2|1+4|3|)}+ \\
& \frac{-1(34)^2(12)[45](36)[12][13](s_{25}+s_{26}+s_{35}+s_{36})}{(23)\Delta_{14|23|56}^2(2|1+4|3|)}+ \\
& \frac{-1(34)^2(6|1+3|4|(13)[12](26)[13](s_{25}+s_{26}+s_{35}+s_{36})}{(23)(56)\Delta_{14|23|56}^2(2|1+4|3|)}+ \\
& \frac{(13)(34)^2(26)(s_{25}+s_{26}+s_{35}+s_{36})(1(36)[34][12][13]-1(24)(36)[13]^2+1(34)[12]^2(26))}{(23)(56)\Delta_{14|23|56}^2(2|1+4|3|)}+ \\
& \frac{[35][12]^2(s_{25}+s_{26}+s_{35}+s_{36})(-1(13)[24](24)^2[25]+1(34)^2(13)[34][35]-1(34)(12)^2[12][25]+1(34)[35](13)^2[13])}{[23][56]\Delta_{14|23|56}^2(2|1+4|3|)}+ \\
& \frac{(46)(s_{25}+s_{26}+s_{35}+s_{36})(-1(34)[24]^2(23)(46)[13] \dots \langle 8 \text{ terms} \rangle \dots -2(34)[24](12)[12](36)[13])}{(56)\Delta_{14|23|56}^2(2|1+4|3|)}+ \\
& \frac{[35](s_{25}+s_{26}+s_{35}+s_{36})(1(34)^3[24][45][13] \dots \langle 5 \text{ terms} \rangle \dots -1(24)[25](13)(23)[12]^2)}{[56]\Delta_{14|23|56}^2(2|1+4|3|)}+ \\
& \frac{-2/3(24)(3|1+4|2|(13)(46)^2(s_{23}-s_{56})}{(14)^2(23)(56)(2|1+4|3|\Delta_{14|23|56}}+ \\
& \frac{4/3(34)[23](3|1+4|3|(13)(46)^2}{(14)^2(56)\Delta_{14|23|56}(2|1+4|3|)}+ \\
& \frac{(34)(46)(28/3(12)[12][25] \dots \langle 3 \text{ terms} \rangle \dots +4/3(34)[24][35])}{(14)\Delta_{14|23|56}(2|1+4|3|)}+ \\
& \frac{(34)(46)(2/3(34)^2[34][45] \dots \langle 3 \text{ terms} \rangle \dots -2/3[15](13)^2[13])}{(14)(23)\Delta_{14|23|56}(2|1+4|3|)}+ \\
& \frac{8/3(34)[14](24)[23](13)(36)(46)}{(14)(23)(56)\Delta_{14|23|56}(2|1+4|3|)}+ \\
& \frac{-2/3(2|1+4|5|[45][12]^3(s_{23}-s_{56})}{[14]^2[23][56]\Delta_{14|23|56}(2|1+4|3|)}+ \\
& \frac{-4/3(2|1+4|5)(23)[45][12]^3}{[14]^2[56]\Delta_{14|23|56}(2|1+4|3|)}+ \\
& \frac{[12](-28/3(23)[12][25](26) \dots \langle 4 \text{ terms} \rangle \dots -2(24)(36)[45][12])}{[14]\Delta_{14|23|56}(2|1+4|3|)}+ \\
& \frac{[12](2(14)[45](36)[12][13] \dots \langle 4 \text{ terms} \rangle \dots +2[24](24)[25][12](26))}{[14][23]\Delta_{14|23|56}(2|1+4|3|)}+ \\
& \frac{-8/3(14)[45](23)[12]^3[35]}{[14][23][56]\Delta_{14|23|56}(2|1+4|3|)}+ \\
& \frac{16/3[13]^2(13)(24)(46)[24](23)(12)[25] \dots \langle 99 \text{ terms} \rangle \dots -16/3[13](13)(46)(23)^2[34][35][23](34)}{(12)(14)[14](23)[23](24)[34](56)[56](2|1+4|3|)}+ \\
324217355/82944[13](13)(46)[24](23)^3[34][35] \dots \langle 141 \text{ terms} \rangle \dots +7972477/20736(14)(13)(24)^2[14]^2[24][45](26) + \\
& \frac{(36)(s_{13}-s_{24})(2/3(46)[24]^2(24) \dots \langle 3 \text{ terms} \rangle \dots -1/3(13)[34][12](46))}{(56)\Delta_{13|24|56}(1|2+4|3|(2|1+3|4|)}+ \\
& \frac{[25](s_{13}-s_{24})(1/3(34)^2[34][45] \dots \langle 6 \text{ terms} \rangle \dots +1/3(12)(23)[12][25])}{[56]\Delta_{13|24|56}(1|2+4|3|(2|1+3|4|)}+ \\
& \frac{1/6(14)^2(36)[25][14]^2 \dots \langle 49 \text{ terms} \rangle \dots +11/9[23][25](13)(23)[12](26)}{\Delta_{13|24|56}(1|2+4|3|(2|1+3|4|)}+ \\
& \frac{50/3(14)(13)(4|1+2|4|[35]^2}{(12)^2[34][56](1|2+4|3|(4|1+2|3|)}+ \\
& \frac{-4/3(14)(13)(34)(46)^2}{(12)^2(56)(1|2+4|3|(4|1+2|3|)}+ \\
& \frac{4/3(34)(14)(13)[35]^2}{(12)^2[56](1|2+4|3|(4|1+2|3|)}+ \\
& \frac{1003/8[15](14)^3[14][35]}{(12)[24][34][56](1|2+4|3|(4|1+2|3|)}+ \\
& \frac{(14)[35](931/4(14)[25][14]-859/8(14)[45][12]+4/3(34)[45][23]+859/8(24)(24)[25])}{(12)[34][56](1|2+4|3|(4|1+2|3|)}+ \\
& \frac{(14)(34)[35](20[15](14)-2/3(34)[35]+20[25](24))}{(12)(24)[56](1|2+4|3|(4|1+2|3|)}+ \\
& \frac{(14)(46)(4/3(36)[23]-4/3(46)[24])}{(12)(56)(1|2+4|3|(4|1+2|3|)}+ \\
& \frac{60(14)(13)^2(24)[12]^2[34][35](26) \dots \langle 41 \text{ terms} \rangle \dots -12(14)(24)^2(46)[24]^2[12](12)[45]}{(12)(14)[14](23)[23](24)[34](56)[56](1|2+4|3|)}+ \\
24(-307948657/82944[13](13)(46)(23)[34][35] \dots \langle 54 \text{ terms} \rangle \dots +1223790095/82944(24)(46)[12](12)[34][45]) + \\
& \frac{(12)(14)(24)[34]^2(56)[56](1|2+4|3|)}{(12)[14](24)[34]^2(56)[56](1|2+4|3|)}+ \\
& \frac{[12](-4/3[14](14)^2[12](26)[35] \dots \langle 7 \text{ terms} \rangle \dots +4/2(24)[23](13)[12](26)[35])}{(12)[13][14][23](24)(56)[56](1|2+4|3|)}+ \\
& \frac{2130353/41472(13)[13][14](23)(26)[45]}{(12)[34](2|3+4|1|(2|1+3|4|^2)}+ \\
& \frac{-228815/5184[13](23)^2[24](26)[45]}{(12)[34](2|3+4|1|(2|1+3|4|^2)}+ \\
& \frac{597905/13824[13](23)^2[35][45][3|1+2|4]}{(12)[34][56](2|3+4|1|(2|1+3|4|^2)}+ \\
& \frac{(23)^2[45](-3463543/10368(36)[13]-14110417/41472[14](46)+3056449/41472(26)[12])}{(12)(2|3+4|1|(2|1+3|4|^2)}+ \\
& \frac{85415/4608(24)[45]^2(23)(3|2+4|1)}{(12)[56](2|3+4|1|(2|1+3|4|^2)}+ \\
& \frac{-85415/4608(36)[45](23)}{(12)(2|1+3|4|^2)}+ \\
& \frac{18(1|3+4|1|[24][14](26)^2}{(12)[34]^2(56)(2|3+4|1|(2|1+3|4|)}+ \\
& \frac{(26)(2545/24(36)[24](23)[13] \dots \langle 3 \text{ terms} \rangle \dots +2081/24(13)[14]^2(46))}{(12)[34](56)(2|3+4|1|(2|1+3|4|)}+ \\
& \frac{[45](23)(5332038101/165888[45][13](34) \dots \langle 7 \text{ terms} \rangle \dots +4692749/6912[15][14](14))}{(12)[34][56](2|3+4|1|(2|1+3|4|)}+ \\
& \frac{[14][15](-4/3[35](13)(23)-14019412381/387072(13)(24)[45]-4/3(12)[25](23)-4/3[15](12)(13))}{(12)[34][56](2|3+4|1|(2|1+3|4|)}+ \\
& \frac{-322/3[13][24](23)^3(26)[25] \dots \langle 24 \text{ terms} \rangle \dots +1306639669/165888[15](13)[14]^2(46)(23)(12)}{(12)[14](23)(24)[34](56)[56](2|1+3|4|)}+ \\
& \frac{-1015254121/82944[13](36)[14](12)[25] \dots \langle 22 \text{ terms} \rangle \dots -4/3[24](23)[12][35](26)}{(12)[13][34](56)[56](2|1+3|4|)}+ \\
& \frac{-1021841/27648[13](13)(46)(23)[34][35] \dots \langle 22 \text{ terms} \rangle \dots -1066051/27648(46)(23)[34]^2[35](34)}{(12)^2(13)(24)[34]^2(56)[56]}+ \\
& \frac{12(46)(23)[12]^2(12)^2[25] \dots \langle 64 \text{ terms} \rangle \dots -4/3[13](13)(36)(23)[35][23](34)}{(12)(14)(23)(23)(24)[34](56)[56]}+ \\
& \frac{-4/3[45]^2[12]^2}{(12)[14]^2[23][34][56]}+ \\
& \frac{[12](241673293/55296[13](46)[24](23)[35] \dots \langle 26 \text{ terms} \rangle \dots -2566629449/165888[13](36)(23)[35][23])}{(12)[13][14][23](24)[34](56)[56]}
\end{aligned}$$