

$$\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|4|(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|4|(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+85415/76823|(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(-92761/76813|(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|(39079/76834|(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{1068013/345613|(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|(-13533557/4147225(24)+408643/1382435(34)-15583517/4147215|(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-30527521/4147215|(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|(-85415/460823|(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|)}+ \\
& \frac{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)}{(12|14|(23|24|34|56|56|(1|2+4|3|(2|1+3|4|)}+ \\
& \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|)}+ \\
& \frac{24|(-307948657/82944|13|(13)(46|23|34|35|\dots\langle 54 \text{ terms} \rangle\dots+1223790095/82944(24)(46|12|(12|34|45|)}{(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|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}$$