

$$\begin{aligned}
& \frac{-3/2[23][35]\langle 46 \rangle}{\langle 12 \rangle \langle 56 \rangle [56] s_{123}} + \\
& \frac{-6[23][25]\langle 46 \rangle}{\langle 13 \rangle \langle 56 \rangle [56] s_{123}} + \\
& \frac{-9/2[15][23]\langle 46 \rangle}{\langle 23 \rangle \langle 56 \rangle [56] s_{123}} + \\
& \frac{21/2[12]\langle 13 \rangle \langle 34 \rangle [35]^2}{\langle 13 \rangle \langle 23 \rangle [56] \langle 3|5+6|3 \rangle^2} + \\
& \frac{7/2[35]\langle 36 \rangle \langle 4|5+6|4 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 3|5+6|3 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{7/2[34]\langle 36 \rangle \langle 46 \rangle \langle 4|1+2|4 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle \langle 3|5+6|3 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{7/2[34][35][45]\langle 4|1+2|4 \rangle}{\langle 12 \rangle \langle 23 \rangle [56] \langle 3|5+6|3 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{5/2[12][35]\langle 36 \rangle}{\langle 23 \rangle \langle 3|5+6|3 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{-6\langle 14 \rangle \langle 36 \rangle \langle 6|1+2|3 \rangle}{\langle 12 \rangle \langle 13 \rangle \langle 23 \rangle \langle 56 \rangle \langle 3|5+6|3 \rangle} + \\
& \frac{14\langle 36 \rangle \langle 46 \rangle \langle 1|2+4|3 \rangle}{\langle 12 \rangle \langle 13 \rangle \langle 23 \rangle \langle 56 \rangle \langle 3|5+6|3 \rangle} + \\
& \frac{6\langle 14 \rangle [35]\langle 36 \rangle \langle 3|1+2|3 \rangle}{\langle 12 \rangle \langle 13 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 3|5+6|3 \rangle} + \\
& \frac{-6\langle 14 \rangle \langle 34 \rangle [35][45]}{\langle 12 \rangle \langle 13 \rangle \langle 23 \rangle [56] \langle 3|5+6|3 \rangle} + \\
& \frac{-7[35]\langle 46 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 3|5+6|3 \rangle} + \\
& \frac{-1/4[12][24]\langle 6|1+2|5 \rangle (s_{123}-s_{124})}{\langle 3|1+2|4 \rangle^2 \Delta_{12|34|56}} + \\
& \frac{1[12]\langle 13 \rangle [24][35]\langle 36 \rangle}{\langle 13 \rangle \langle 3|1+2|3 \rangle \langle 3|1+2|4 \rangle^2} + \\
& \frac{-1[12][24]\langle 34 \rangle [35][45]}{[56] \langle 3|1+2|3 \rangle \langle 3|1+2|4 \rangle^2} + \\
& \frac{-3/16[12][24]\langle 4|1+2|3 \rangle \langle 6|1+2|5 \rangle (s_{123}-s_{124})}{\langle 3|1+2|4 \rangle \Delta_{12|34|56}^2} + \\
& \frac{-1/2[15]^2 \langle 23 \rangle \langle 1|3+4|2 \rangle \langle 4|1+2|3 \rangle (s_{234}-s_{134})}{\langle 12 \rangle \langle 34 \rangle [56] \langle 2|3+4|1 \rangle \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{7/8[14][15]\langle 26 \rangle \langle 1|3+4|2 \rangle \langle 4|1+2|3 \rangle (s_{234}-s_{134})}{\langle 12 \rangle \langle 56 \rangle [56] \langle 2|3+4|1 \rangle \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{-7/8[14]\langle 16 \rangle [25]\langle 4|1+2|3 \rangle (s_{234}-s_{134})}{\langle 12 \rangle \langle 56 \rangle [56] \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{-1/2[12]\langle 14 \rangle [14]\langle 16 \rangle [35]}{\langle 12 \rangle \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{[12](-1/2\langle 13 \rangle \langle 14 \rangle [14][35]\langle 46 \rangle \dots \langle 4 \text{ terms} \rangle \dots + 1/4\langle 13 \rangle [23]\langle 24 \rangle [25]\langle 26 \rangle)}{\langle 12 \rangle \langle 34 \rangle \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{\langle 24 \rangle^2 [45][12][25]\langle 1|3 \rangle [23] + \langle 1|4 \rangle [24]}{\langle 12 \rangle \langle 34 \rangle [56] \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{(s_{34}-s_{56})\langle 1|23 \rangle \langle 34 \rangle [45]\langle 46 \rangle \dots \langle 10 \text{ terms} \rangle \dots - 5/8[23]\langle 34 \rangle [35]\langle 36 \rangle)}{\langle 12 \rangle \langle 34 \rangle \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{\langle 46 \rangle (s_{34}-s_{56})(-13/8[24]\langle 45 \rangle [45]\langle 46 \rangle \dots \langle 4 \text{ terms} \rangle \dots - 7/4[23]\langle 24 \rangle [24]\langle 36 \rangle)}{\langle 12 \rangle \langle 34 \rangle \langle 56 \rangle \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{(s_{34}-s_{56})(-3/2\langle 23 \rangle [25]^2 \langle 36 \rangle \langle 46 \rangle \dots \langle 6 \text{ terms} \rangle \dots + 1\langle 24 \rangle^2 [24][25]^2)}{\langle 12 \rangle \langle 34 \rangle [56] \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{1/2[12][24]\langle 46 \rangle^2 [56] \dots \langle 10 \text{ terms} \rangle \dots + 9/4[13][25][26]\langle 36 \rangle \langle 46 \rangle}{\langle 34 \rangle \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{[25]\langle 1|15 \rangle [26]\langle 46 \rangle^2 [46] \dots \langle 6 \text{ terms} \rangle \dots + 1[15][25]\langle 45 \rangle \langle 46 \rangle [46]}{\langle 34 \rangle [56] \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{7/4[12][25]\langle 46 \rangle (s_{12}-s_{56})}{\langle 34 \rangle \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{\langle 46 \rangle [12](s_{12}-s_{56})\langle 3|4 \rangle [24]\langle 46 \rangle + 5/4[23]\langle 36 \rangle)}{\langle 34 \rangle \langle 56 \rangle \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{[25][15](s_{12}-s_{56})\langle 1|25 \rangle \langle 45 \rangle + 2[26]\langle 46 \rangle)}{\langle 34 \rangle [56] \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{[12]\langle 46 \rangle (5/4[12]\langle 16 \rangle [34] + 7/4[13]\langle 16 \rangle [24] - 1/2[24][34]\langle 46 \rangle)}{\langle 56 \rangle \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{-5/4[14][25]^2 \langle 36 \rangle \langle 46 \rangle \dots \langle 9 \text{ terms} \rangle \dots + 1/2[12][24]\langle 34 \rangle [35]^2}{[56] \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{-5/8[12][25][35](s_{12}-s_{34})}{[56] \langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{-1/2[12][23][35]\langle 36 \rangle \dots \langle 4 \text{ terms} \rangle \dots + 13/8[12][25][35]\langle 56 \rangle}{\langle 3|1+2|4 \rangle \Delta_{12|34|56}} + \\
& \frac{1/2\langle 12 \rangle [12]^2 \langle 13 \rangle \langle 23 \rangle [35]^2}{\langle 12 \rangle \langle 23 \rangle [56] \langle 3|1+2|3 \rangle^2 \langle 3|1+2|4 \rangle} + \\
& \frac{3/2[12]\langle 13 \rangle [35]^2}{\langle 12 \rangle [56] \langle 3|1+2|3 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{-9/2[12]\langle 13 \rangle [15][35]}{\langle 23 \rangle [56] \langle 3|1+2|3 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{-7/2[12][25][35]}{[56] \langle 3|1+2|3 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{-3/2[12][15]\langle 16 \rangle \langle 24 \rangle}{\langle 12 \rangle \langle 34 \rangle \langle 2|3+4|1 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{-7/2[12]^2 \langle 16 \rangle \langle 24 \rangle \langle 26 \rangle}{\langle 12 \rangle \langle 34 \rangle \langle 56 \rangle \langle 2|3+4|1 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{\langle 12 \rangle [25][15]\langle 3|2 \rangle [13]\langle 34 \rangle - 2[12]\langle 24 \rangle}{\langle 12 \rangle \langle 34 \rangle [56] \langle 2|3+4|1 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{2[25]\langle 26 \rangle + 7/2[45]\langle 46 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{17/2[23]\langle 24 \rangle \langle 36 \rangle^2}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{\langle 36 \rangle (-5[23]\langle 26 \rangle - 7/2[34]\langle 46 \rangle)}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{-7/2[23]\langle 24 \rangle \langle 36 \rangle [45]}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 3|1+2|4 \rangle} + \\
& \frac{2\langle 23 \rangle [25][35] - 2\langle 24 \rangle [25][45] - 7/2\langle 34 \rangle [35][45]}{\langle 12 \rangle \langle 23 \rangle [56] \langle 3|1+2|4 \rangle} + \\
& \frac{-13/2\langle 46 \rangle \langle 6|1+3|2 \rangle}{\langle 12 \rangle \langle 34 \rangle \langle 56 \rangle \langle 3|1+2|4 \rangle} + \\
& \frac{3/8[12][23]\langle 4|1+2|3 \rangle \langle 6|1+2|5 \rangle}{\Delta_{12|34|56}^2} + \\
& \frac{-21/2[12]\langle 24 \rangle^2 [25]^2}{\langle 23 \rangle \langle 34 \rangle [56] \langle 2|5+6|2 \rangle^2} + \\
& \frac{-7/2[15]\langle 24 \rangle^2 \langle 6|1+5|2 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 2|3+4|1 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{-7/2[12][12][15]\langle 24 \rangle^2 [25]}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle [56] \langle 2|3+4|1 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{-7/2[13]\langle 24 \rangle \langle 26 \rangle \langle 6|1+5|2 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle \langle 2|3+4|1 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{7/2\langle 24 \rangle \langle 46 \rangle \langle 6|1+5|2 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{-5[23]\langle 24 \rangle [25]\langle 26 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 2|5+6|2 \rangle} + \\
& \frac{7/2[15]\langle 24 \rangle^2 [25]}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle [56] \langle 2|3+4|1 \rangle} + \\
& \frac{8\langle 16 \rangle \langle 46 \rangle}{\langle 12 \rangle \langle 13 \rangle \langle 23 \rangle \langle 56 \rangle} + \\
& \frac{-155/27\langle 46 \rangle^2}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle} + \\
& \frac{6[35]\langle 46 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle [56]}
\end{aligned}$$