

$$\begin{aligned}
& \frac{-5/2\langle 46\rangle[45][12]\langle 13\rangle}{s_{123}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{\langle 46\rangle[12]\langle -3/2\langle 12\rangle[25][14]\langle 14\rangle \dots \langle 5 \text{ terms} \rangle \dots -3/2[14][35]\langle 14\rangle\langle 13\rangle)}{s_{123}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle\langle 4|1+2|3\rangle} + \\
& \frac{-1\langle 4|1+3|2\rangle\langle 46\rangle[12][35]\langle 14\rangle}{\langle 1|2+4|3\rangle\langle 4|1+2|3\rangle^2 s_{123}} + \\
& \frac{-3/2\langle 46\rangle[25][12]\langle 14\rangle}{s_{123}\langle 1|2+4|3\rangle\langle 4|1+2|3\rangle} + \\
& \frac{1[12][35]\langle 14\rangle\langle 26\rangle\langle 1|3+4|2\rangle}{\langle 1|2+4|3\rangle^2\langle 2|1+3|4\rangle\langle 4|1+2|3\rangle} + \\
& \frac{-1/4(s_{12}-s_{34})\langle 16\rangle(s_{124}-s_{234})[45][12]\langle 14\rangle}{\Delta_{13|24|56}\langle 1|2+4|3\rangle^2\langle 2|1+3|4\rangle} + \\
& \frac{1/4\langle 16\rangle(s_{124}-s_{234})[25][12]\langle 14\rangle}{\Delta_{13|24|56}\langle 1|2+4|3\rangle^2} + \\
& \frac{1/4(s_{12}-s_{34})[45][12]\langle 13\rangle\langle 26\rangle(s_{123}-s_{134})}{\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle^2} + \\
& \frac{-1\langle 26\rangle[45][12]\langle 13\rangle}{\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle^2} + \\
& \frac{[12]\langle 3\rangle\langle 26\rangle[12][35]\langle 14\rangle+3/2[13][35]\langle 36\rangle\langle 14\rangle+5/2[13][45]\langle 46\rangle\langle 14\rangle-3/2\langle 12\rangle\langle 46\rangle[12][35]}{[13]\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle\langle 4|1+2|3\rangle} + \\
& \frac{-3/32\langle 6|1+3|5\rangle[12]\langle 13\rangle(s_{25}+s_{26}+s_{45}+s_{46})(s_{12}-s_{34})^2}{\Delta_{13|24|56}^2\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{1/8\langle 6|1+3|5\rangle[34][12]^2\langle 24\rangle\langle 13\rangle}{[13]\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{1/8\langle 6|1+3|5\rangle(s_{24}-s_{56})[12]\langle 14\rangle[14]}{[13]\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{-3/8(s_{24}-s_{56})\langle 46\rangle[12][35]\langle 13\rangle[14]}{[13]\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{[12]\langle 6|1+3|5\rangle(15/8\langle 12\rangle[24]\langle 34\rangle \dots \langle 4 \text{ terms} \rangle \dots -1/8\langle 23\rangle[23]\langle 13\rangle)}{\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{\langle 36\rangle[12](s_{12}-s_{34})(9/8[45]\langle 14\rangle+3/8\langle 12\rangle[25])}{\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{[12]\langle 3\rangle\langle 8\rangle\langle 46\rangle[35][14]\langle 13\rangle^2 \dots \langle 4 \text{ terms} \rangle \dots +3/4\langle 12\rangle[25]\langle 46\rangle\langle 13\rangle[14]}{\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{-3[15][12]\langle 16\rangle}{[13]\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{-3/32\langle 6|1+3|5\rangle\langle 4|1+3|2\rangle[12]\langle 13\rangle(s_{25}+s_{26}+s_{45}+s_{46})}{\Delta_{13|24|56}^2\langle 1|2+4|3\rangle} + \\
& \frac{[25][12]\langle -3/4\langle 36\rangle\langle 14\rangle+1/2\langle 46\rangle\langle 13\rangle\rangle}{\Delta_{13|24|56}\langle 1|2+4|3\rangle} + \\
& \frac{3/2[15]\langle 46\rangle[12]}{[13]\langle 2|1+3|4\rangle\langle 4|1+2|3\rangle} + \\
& \frac{-3/32\langle 6|1+3|5\rangle[12]\langle 13\rangle\langle 3|2+4|1\rangle(s_{25}+s_{26}+s_{45}+s_{46})}{\Delta_{13|24|56}^2\langle 2|1+3|4\rangle} + \\
& \frac{\langle 36\rangle[12]\langle -3/8\langle 23\rangle[25]+3/2[45]\langle 34\rangle\rangle}{\Delta_{13|24|56}\langle 2|1+3|4\rangle}
\end{aligned}$$