

$$\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] (-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 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] (-3/4 \langle 36 \rangle \langle 14 \rangle + 1/2 \langle 46 \rangle \langle 13 \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] (-3/8 \langle 23 \rangle [25] + 3/2 [45] \langle 34 \rangle)}{\Delta_{13|24|56} \langle 2|1+3|4 \rangle}
\end{aligned}$$