

$$\begin{aligned}
& \frac{1[12]^3\langle 16 \rangle^2}{[13][23]\langle 56 \rangle \langle 1|5+6|1\rangle \langle 1|2+3|4\rangle} + \\
& \frac{\langle 12 \rangle [12]^2 (1\langle 14 \rangle [24] \langle 26 \rangle [45] \dots \langle 6 \text{ terms} \rangle \dots + 1\langle 14 \rangle [34] \langle 36 \rangle [45])}{[13] \langle 56 \rangle [56] \langle 1|2+4|3\rangle \langle 1|2+3|4\rangle \langle 2|1+3|4\rangle} + \\
& \frac{\langle 6|1+4|5\rangle \langle 3|1+4|2\rangle (s_{123} - s_{234}) (1/4[13] \langle 14 \rangle [24] - 1/8 \langle 13 \rangle [13] [23] - 1/8 [23] \langle 34 \rangle [34])}{[23] \langle 56 \rangle [56] \langle 1|2+3|4\rangle \langle 2|1+4|3\rangle \Delta_{14|23|56}} + \\
& \frac{-1/2 \langle 14 \rangle [24] [34] \langle 3|1+4|2\rangle \langle 4|2+3|1\rangle \langle 6|1+4|5\rangle}{[23] \langle 56 \rangle [56] \langle 1|2+3|4\rangle \langle 2|1+4|3\rangle \Delta_{14|23|56}} + \\
& \frac{-1[13] \langle 14 \rangle [24] [25] \langle 36 \rangle \dots \langle 4 \text{ terms} \rangle \dots + 1\langle 13 \rangle [13] [24] [25] \langle 46 \rangle}{[23] \langle 56 \rangle [56] \langle 1|2+3|4\rangle \langle 2|1+4|3\rangle} + \\
& \frac{-1[12]^2 [25] \langle 26 \rangle}{[13][23] \langle 2|5+6|2\rangle \langle 2|1+3|4\rangle} + \\
& \frac{-1/4 [34] \langle 3|2+4|1\rangle \langle 4|1+3|2\rangle \langle 6|1+3|5\rangle (s_{123} + s_{134})}{[13] \langle 56 \rangle [56] \langle 1|2+4|3\rangle \langle 2|1+3|4\rangle \Delta_{13|24|56}} + \\
& \frac{[12] (-1\langle 14 \rangle [14] [45] \langle 46 \rangle \dots \langle 6 \text{ terms} \rangle \dots - 1[12] \langle 13 \rangle \langle 26 \rangle [35])}{[13] \langle 56 \rangle [56] \langle 1|2+4|3\rangle \langle 2|1+3|4\rangle} + \\
& \frac{-1[14] \langle 16 \rangle \langle 34 \rangle \langle 36 \rangle}{\langle 23 \rangle \langle 56 \rangle \langle 1|2+4|3\rangle \langle 2|1+3|4\rangle} + \\
& (123456 \rightarrow \overline{432165})
\end{aligned}$$