

$$\begin{aligned}
& \frac{\langle 46 \rangle (2/3 \langle 23 \rangle [24] \langle 12 \rangle [34] [12] [35] \dots \langle 17 \text{ terms} \rangle \dots - 1 \langle 23 \rangle^2 [45] [23]^2 [34])}{\langle 12 \rangle^2 [13] [34]^2 \langle 56 \rangle [56] s_{123}} + \\
& \frac{1/3 \langle 46 \rangle [14] \langle 1 | 2+3 | 5 \rangle [12]^2}{[13] [34] \langle 56 \rangle [56] \langle 1 | 2+3 | 1 \rangle s_{123}} + \\
& \frac{[12]^2 \langle 46 \rangle (13/3 \langle 23 \rangle [35] [24] - 13/3 [13] [45] \langle 13 \rangle + 13/3 [35] [14] \langle 13 \rangle)}{[13] [34] \langle 56 \rangle [56] \langle 1 | 2+3 | 1 \rangle s_{123}} + \\
& \frac{-1/4 (s_{13} - s_{24}) \langle 13 \rangle (s_{123} - s_{234}) [35] \langle 16 \rangle \langle 3 | 1+4 | 2 \rangle}{\langle 14 \rangle \langle 1 | 2+3 | 4 \rangle^2 \langle 2 | 1+4 | 3 \rangle \Delta_{14|23|56}} + \\
& \frac{1 \langle 13 \rangle^2 [34] [45] \langle 16 \rangle \langle 34 \rangle}{\langle 12 \rangle^2 \langle 14 \rangle [14] \langle 1 | 2+3 | 4 \rangle^2} + \\
& \frac{-1/4 \langle 13 \rangle [25] (s_{123} - s_{234}) \langle 16 \rangle \langle 3 | 1+4 | 2 \rangle}{\langle 14 \rangle \langle 1 | 2+3 | 4 \rangle^2 \Delta_{14|23|56}} + \\
& \frac{-1/2 \langle 3 | 1+2 | 3 \rangle \langle 6 | 1+4 | 5 \rangle (s_{124} - s_{134}) (s_{13} - s_{24})}{\langle 1 | 2+3 | 4 \rangle \langle 2 | 1+4 | 3 \rangle^2 \Delta_{14|23|56}} + \\
& \frac{[13] (-1 \langle 12 \rangle \langle 13 \rangle [12] [15] \langle 16 \rangle \dots \langle 3 \text{ terms} \rangle \dots - 1 \langle 12 \rangle \langle 13 \rangle [12] [45] \langle 46 \rangle)}{\langle 14 \rangle [14] \langle 24 \rangle [34] \langle 1 | 2+3 | 4 \rangle \langle 2 | 1+4 | 3 \rangle} + \\
& \frac{-1/4 \langle 26 \rangle (s_{15} + s_{16} + s_{45} + s_{46}) \langle 1 | 3+4 | 2 \rangle \langle 46 \rangle \langle 3 | 1+4 | 2 \rangle}{\langle 14 \rangle \langle 56 \rangle \langle 1 | 2+3 | 4 \rangle \langle 2 | 1+4 | 3 \rangle \Delta_{14|23|56}} + \\
& \frac{-1 (s_{13} - s_{24}) \langle 13 \rangle [35] \langle 46 \rangle \langle 3 | 1+4 | 2 \rangle}{\langle 14 \rangle \Delta_{14|23|56} \langle 1 | 2+3 | 4 \rangle \langle 2 | 1+4 | 3 \rangle} + \\
& \frac{\langle 3 | 1+4 | 2 \rangle (-3/8 [15] \langle 16 \rangle [12] \langle 12 \rangle \dots \langle 6 \text{ terms} \rangle \dots - 5/8 [45] [24] \langle 46 \rangle \langle 24 \rangle)}{\langle 1 | 2+3 | 4 \rangle \langle 2 | 1+4 | 3 \rangle \Delta_{14|23|56}} + \\
& \frac{[45] \langle 36 \rangle (s_{134} - s_{124}) (-1/2 \langle 14 \rangle [12] + 3/2 [23] \langle 34 \rangle)}{\langle 1 | 2+3 | 4 \rangle \langle 2 | 1+4 | 3 \rangle \Delta_{14|23|56}} + \\
& \frac{1/2 (s_{23} - s_{56}) \langle 12 \rangle [25] \langle 46 \rangle \langle 3 | 1+4 | 2 \rangle}{\langle 14 \rangle \langle 1 | 2+3 | 4 \rangle \langle 2 | 1+4 | 3 \rangle \Delta_{14|23|56}} + \\
& \frac{\langle 3 | 1+4 | 2 \rangle (s_{23} - s_{56}) (1/4 [15] \langle 16 \rangle [12] \langle 12 \rangle + 1/4 [13] [45] \langle 46 \rangle \langle 13 \rangle)}{\langle 14 \rangle [14] \langle 1 | 2+3 | 4 \rangle \langle 2 | 1+4 | 3 \rangle \Delta_{14|23|56}} + \\
& \frac{[12] (-2 \langle 26 \rangle \langle 13 \rangle^4 [34] [13]^2 [35] \dots \langle 6 \text{ terms} \rangle \dots + 2 \langle 12 \rangle \langle 13 \rangle^3 [13]^3 [45] \langle 16 \rangle)}{\langle 12 \rangle^2 [13] \langle 14 \rangle [14] [34] \langle 56 \rangle [56] \langle 1 | 2+3 | 1 \rangle \langle 1 | 2+3 | 4 \rangle} + \\
& \frac{2 [24] \langle 12 \rangle^3 [12] [13] [45] \langle 46 \rangle \langle 34 \rangle \dots \langle 46 \text{ terms} \rangle \dots + 2 \langle 14 \rangle \langle 26 \rangle \langle 12 \rangle^2 \langle 13 \rangle [12]^2 [13] [45]}{\langle 12 \rangle^2 [13] \langle 14 \rangle [14] \langle 24 \rangle [34] \langle 56 \rangle [56] \langle 1 | 2+3 | 4 \rangle} + \\
& \frac{[12] \langle 12 \rangle [25] (-2 [13]^2 \langle 46 \rangle \langle 13 \rangle^2 + 2 \langle 14 \rangle \langle 26 \rangle [12]^2 \langle 12 \rangle)}{[13] \langle 14 \rangle \langle 24 \rangle [34] \langle 56 \rangle [56] \langle 1 | 2+3 | 1 \rangle \langle 1 | 2+3 | 4 \rangle} + \\
& \frac{-1 [25] \langle 46 \rangle \langle 3 | 1+4 | 2 \rangle \langle 13 \rangle}{\langle 14 \rangle \Delta_{14|23|56} \langle 1 | 2+3 | 4 \rangle} + \\
& \frac{21/8 \langle 3 | 1+4 | 2 \rangle \langle 36 \rangle [25]}{\langle 1 | 2+3 | 4 \rangle \Delta_{14|23|56}} + \\
& \frac{2 [13] [35] \langle 36 \rangle}{[34] \langle 2 | 1+4 | 3 \rangle^2} + \\
& \frac{-1/2 [13] \langle 6 | 1+4 | 5 \rangle (s_{124} - s_{134}) \langle 34 \rangle}{\langle 2 | 1+4 | 3 \rangle^2 \Delta_{14|23|56}} + \\
& \frac{2 [13] [45] \langle 36 \rangle}{\langle 12 \rangle [14] [34] \langle 2 | 1+4 | 3 \rangle} + \\
& \frac{1/2 [35] \langle 46 \rangle \langle 3 | 1+4 | 2 \rangle \langle 34 \rangle}{\langle 14 \rangle \Delta_{14|23|56} \langle 2 | 1+4 | 3 \rangle} + \\
& \frac{9/16 \langle 3 | 1+4 | 2 \rangle [15] \langle 46 \rangle}{\langle 2 | 1+4 | 3 \rangle \Delta_{14|23|56}} + \\
& \frac{109/36 \langle 26 \rangle [24] \langle 13 \rangle [13] [45]}{\langle 12 \rangle^2 [14] [34]^2 \langle 56 \rangle [56]} + \\
& \frac{-5 \langle 14 \rangle \langle 26 \rangle \langle 13 \rangle^2 [13]^2 [15] \dots \langle 32 \text{ terms} \rangle \dots + 2 \langle 23 \rangle \langle 13 \rangle [34] [13] [35] \langle 46 \rangle \langle 34 \rangle}{\langle 12 \rangle^2 [13] \langle 14 \rangle [14] \langle 24 \rangle [34] \langle 56 \rangle [56]} + \\
& \frac{1/3 \langle 26 \rangle \langle 1 | 3+4 | 1 \rangle [23] [15] [14]}{\langle 12 \rangle [13] [34]^2 \langle 56 \rangle [56] \langle 2 | 3+4 | 1 \rangle} + \\
& \frac{[12] (-1/3 \langle 14 \rangle \langle 26 \rangle \langle 24 \rangle [25] [14] \dots \langle 6 \text{ terms} \rangle \dots - 1/3 \langle 14 \rangle^2 [15] [14] \langle 26 \rangle)}{\langle 12 \rangle [13] \langle 24 \rangle [34] \langle 56 \rangle [56] \langle 1 | 2+3 | 1 \rangle} + \\
& \frac{[12] (-4/3 [13] [25] \langle 26 \rangle \langle 13 \rangle^2 \dots \langle 5 \text{ terms} \rangle \dots + 2/3 [13] \langle 16 \rangle [15] \langle 13 \rangle^2)}{\langle 12 \rangle \langle 14 \rangle [14] [34] \langle 56 \rangle [56] \langle 1 | 2+3 | 1 \rangle} + \\
& \frac{1/3 \langle 14 \rangle [24] \langle 1 | 3+4 | 1 \rangle \langle 6 | 1+5 | 4 \rangle \langle 24 \rangle [12] [15]}{\langle 12 \rangle [13] [34] \langle 56 \rangle [56] \langle 4 | 2+3 | 4 \rangle (\langle 3 | 2 | 5+6 | 1 | 3 \rangle - \langle 2 | 4 | 5+6 | 1 | 2 \rangle)} + \\
& \frac{[15] [12] \langle 1 | 3 | 13 \rangle [23] \langle 26 \rangle \langle 13 \rangle^2 \dots \langle 3 \text{ terms} \rangle \dots + 1/3 \langle 14 \rangle \langle 26 \rangle \langle 13 \rangle [34] [12]}{\langle 12 \rangle [13] [34] \langle 56 \rangle [56] (\langle 3 | 2 | 5+6 | 1 | 3 \rangle - \langle 2 | 4 | 5+6 | 1 | 2 \rangle)} + \\
& \frac{\langle 13 \rangle [15] [12] \langle 1 | 3 | 13 \rangle [12] [25] - 1/3 [35] [12] \langle 12 \rangle - 1/3 [35] [24] \langle 24 \rangle}{\langle 12 \rangle [13] [34] [56] (\langle 3 | 2 | 5+6 | 1 | 3 \rangle - \langle 2 | 4 | 5+6 | 1 | 2 \rangle)} + \\
& \frac{1/3 \langle 23 \rangle \langle 13 \rangle [23] [12] [15]^2}{[34] [56] \langle 2 | 3+4 | 1 \rangle (\langle 3 | 2 | 5+6 | 1 | 3 \rangle - \langle 2 | 4 | 5+6 | 1 | 2 \rangle)} + \\
& (123456 \rightarrow \overline{432165}) + \\
& \frac{7/32 \langle 6 | 1+4 | 5 \rangle (s_{25} + s_{26} + s_{35} + s_{36}) \langle 3 | 1+4 | 2 \rangle (s_{123} - s_{234}) (s_{124} - s_{134})}{\Delta_{14|23|56}^2 \langle 1 | 2+3 | 4 \rangle \langle 2 | 1+4 | 3 \rangle}
\end{aligned}$$