

$$\begin{aligned}
& \frac{3/2(36)^2\langle 34 \rangle s_{123}\langle 3|1+2|3 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle \langle 3|5+6|3 \rangle^3} + \\
& \frac{1/2(4|1+2|3 \rangle s_{123}\langle 36 \rangle [34] \langle 34 \rangle \langle 26 \rangle)}{\langle 12 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle^2 \langle 3|5+6|3 \rangle^2} + \\
& \frac{-1/4(36)\langle 34 \rangle \langle 6|1+2|3 \rangle s_{123}}{\langle 12 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle \langle 3|5+6|3 \rangle^2} + \\
& \frac{-3/2(46)s_{123}\langle 36 \rangle [34] \langle 34 \rangle}{\langle 12 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle \langle 3|5+6|3 \rangle^2} + \\
& \frac{-1/4[45] \langle 34 \rangle^2 [35] s_{123}}{\langle 12 \rangle [56] \langle 2|1+4|3 \rangle \langle 3|5+6|3 \rangle^2} + \\
& \frac{3(4|2+3|1 \rangle \langle 4|1+2|3 \rangle \langle 26 \rangle^2 \langle 3|1+2|3 \rangle)}{\langle 24 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle^3 \langle 3|5+6|3 \rangle} + \\
& \frac{\langle 34 \rangle^2 \langle 24 \rangle [35]^2 (9/2[34]^2 \langle 34 \rangle \langle 23 \rangle - 9/2 \langle 24 \rangle \langle 12 \rangle [14] [24] - 9/2 \langle 12 \rangle \langle 14 \rangle [14]^2 - 9[34] \langle 34 \rangle \langle 12 \rangle [14])}{\langle 12 \rangle \langle 23 \rangle [56] \langle 2|1+4|3 \rangle^2 \langle 3|5+6|3 \rangle \langle 4|1+2|3 \rangle} + \\
& \frac{\langle 24 \rangle^2 \langle 36 \rangle^2 [34] (-15/2 \langle 13 \rangle [13] + 9/2 \langle 14 \rangle [14] + 9/2 \langle 24 \rangle [24] + 3/2 [12] \langle 12 \rangle)}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle^2 \langle 3|5+6|3 \rangle} + \\
& \frac{\langle 36 \rangle \langle 2|12 \rangle \langle 14 \rangle \langle 24 \rangle [34] \langle 26 \rangle \dots \langle 8 \text{ terms} \rangle \dots + 5/2 \langle 12 \rangle [23] [12] \langle 24 \rangle \langle 26 \rangle)}{\langle 12 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle^2 \langle 3|5+6|3 \rangle} + \\
& \frac{[35] (-9/2 \langle 24 \rangle^2 \langle 13 \rangle [14] [25] \dots \langle 13 \text{ terms} \rangle \dots - 9/2 [15] \langle 12 \rangle [14] \langle 14 \rangle \langle 34 \rangle)}{\langle 12 \rangle [56] \langle 2|1+4|3 \rangle^2 \langle 3|5+6|3 \rangle} + \\
& \frac{[35]^2 \langle 23 \rangle [12] \langle 1/2 \langle 24 \rangle [24] + 1/2 [23] \langle 23 \rangle \rangle}{[34] [56] \langle 2|1+4|3 \rangle^2 \langle 3|5+6|3 \rangle} + \\
& \frac{\langle 46 \rangle \langle 34 \rangle (13/4 [13] \langle 12 \rangle [23] \langle 46 \rangle \langle 23 \rangle^2 \dots \langle 3 \text{ terms} \rangle \dots - 9/2 \langle 24 \rangle^2 \langle 36 \rangle [34]^2 \langle 34 \rangle)}{\langle 12 \rangle \langle 23 \rangle \langle 24 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle \langle 3|5+6|3 \rangle \langle 4|1+2|3 \rangle} + \\
& \frac{-9/2 [35] [45] \langle 24 \rangle [34] \langle 34 \rangle^3}{\langle 12 \rangle \langle 23 \rangle [56] \langle 2|1+4|3 \rangle \langle 3|5+6|3 \rangle \langle 4|1+2|3 \rangle} + \\
& \frac{\langle 46 \rangle (-9/2 \langle 46 \rangle \langle 13 \rangle \langle 23 \rangle [14] \dots \langle 6 \text{ terms} \rangle \dots + 7/4 \langle 36 \rangle \langle 34 \rangle \langle 12 \rangle [14])}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle \langle 3|5+6|3 \rangle} + \\
& \frac{\langle 36 \rangle (6 \langle 36 \rangle [13] \langle 34 \rangle \langle 12 \rangle + 9/2 \langle 24 \rangle \langle 36 \rangle \langle 13 \rangle [13] + 4 \langle 24 \rangle \langle 36 \rangle [12] \langle 12 \rangle - 5/2 \langle 24 \rangle \langle 13 \rangle [12] \langle 26 \rangle)}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle \langle 3|5+6|3 \rangle} + \\
& \frac{\langle 34 \rangle^2 [45] (-11/2 [35] \langle 23 \rangle + 9/2 \langle 24 \rangle [45])}{\langle 12 \rangle \langle 23 \rangle [56] \langle 2|1+4|3 \rangle \langle 3|5+6|3 \rangle} + \\
& \frac{\langle 46 \rangle \langle 34 \rangle \langle 26 \rangle (35/4 [34] \langle 34 \rangle + 5/2 [12] \langle 12 \rangle + 7/4 \langle 14 \rangle [14])}{\langle 12 \rangle \langle 24 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle \langle 3|5+6|3 \rangle} + \\
& \frac{-7/4 [35]^2 \langle 34 \rangle^2 \langle 23 \rangle}{\langle 12 \rangle \langle 24 \rangle [56] \langle 2|1+4|3 \rangle \langle 3|5+6|3 \rangle} + \\
& \frac{-1/2 [35] [45] \langle 13 \rangle [12] \langle 24 \rangle}{\langle 12 \rangle [34] [56] \langle 2|1+4|3 \rangle \langle 3|5+6|3 \rangle} + \\
& \frac{-1/2 [35]^2 \langle 23 \rangle \langle 13 \rangle [12]}{\langle 12 \rangle [34] [56] \langle 2|1+4|3 \rangle \langle 3|5+6|3 \rangle} + \\
& \frac{\langle 34 \rangle \langle 46 \rangle^2 (23/4 \langle 23 \rangle \langle 13 \rangle [13] \dots \langle 5 \text{ terms} \rangle \dots + 25/4 \langle 34 \rangle \langle 12 \rangle [14])}{\langle 12 \rangle \langle 23 \rangle \langle 24 \rangle \langle 56 \rangle \langle 3|5+6|3 \rangle \langle 4|1+2|3 \rangle} + \\
& \frac{\langle 46 \rangle^2 (-1/2 \langle 13 \rangle^2 [13]^2 - 1/2 [23]^2 \langle 23 \rangle^2 - 1 [23] \langle 23 \rangle \langle 13 \rangle [13])}{\langle 12 \rangle \langle 24 \rangle [34] \langle 56 \rangle \langle 3|5+6|3 \rangle \langle 4|1+2|3 \rangle} + \\
& \frac{-7/4 \langle 34 \rangle^3 [35]^2}{\langle 12 \rangle \langle 24 \rangle [56] \langle 3|5+6|3 \rangle \langle 4|1+2|3 \rangle} + \\
& \frac{7/2 \langle 36 \rangle^2 \langle 34 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle \langle 3|5+6|3 \rangle} + \\
& \frac{\langle 36 \rangle \langle 4 \rangle \langle 26 \rangle [13] \langle 14 \rangle - 1/2 [23] \langle 24 \rangle \langle 26 \rangle - 12 [13] \langle 12 \rangle \langle 46 \rangle}{\langle 12 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle^2} + \\
& \frac{[35] (-3 \langle 24 \rangle [45] \langle 34 \rangle - 1/2 \langle 24 \rangle \langle 23 \rangle [25] + 9/2 [35] \langle 34 \rangle \langle 23 \rangle + 7/2 [15] \langle 34 \rangle \langle 12 \rangle)}{\langle 12 \rangle [56] \langle 2|1+4|3 \rangle^2} + \\
& \frac{[15] (5/4 \langle 24 \rangle [35] [24] - 5/4 [23] \langle 24 \rangle [45] + 1/4 [35] [12] \langle 12 \rangle + 7/4 [35] \langle 14 \rangle [14])}{\langle 12 \rangle [13] [34] [56] \langle 2|1+4|3 \rangle} + \\
& \frac{-11/2 \langle 24 \rangle \langle 36 \rangle^2}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle} + \\
& \frac{-6 \langle 46 \rangle \langle 34 \rangle \langle 26 \rangle}{\langle 12 \rangle \langle 24 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle} + \\
& \frac{-7/4 [15] [45] \langle 14 \rangle}{\langle 12 \rangle [34] [56] \langle 2|1+4|3 \rangle} + \\
& \frac{-29/4 \langle 36 \rangle \langle 46 \rangle}{\langle 12 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle} + \\
& \frac{-1/2 [15] [25]}{[34] [56] \langle 2|1+4|3 \rangle} + \\
& \frac{1/2 \langle 56 \rangle [15]^2 [23] \langle 13 \rangle [12] \langle 34 \rangle}{[13] ((2|3|5+6|1|2) - (3|4|5+6|1|3))^2} + \\
& \frac{-1 [15]^2 \langle 34 \rangle [12] \langle 3|1+2|3 \rangle}{[13]^2 \langle 23 \rangle [56] ((2|3|5+6|1|2) - (3|4|5+6|1|3))} + \\
& \frac{1/2 [15] [35] [23] [12]^2 \langle 23 \rangle}{[13]^2 [34] [56] ((2|3|5+6|1|2) - (3|4|5+6|1|3))} + \\
& \frac{[23] [15] [12] \langle 1/2 [25] \langle 23 \rangle - 1 [45] \langle 34 \rangle + 1/2 [15] \langle 13 \rangle \rangle}{[13] [34] [56] ((2|3|5+6|1|2) - (3|4|5+6|1|3))} + \\
& \frac{3/4 [35] [15] [12]}{\langle 12 \rangle [13]^2 [34] [56]} + \\
& \frac{-1/2 \langle 46 \rangle^2 \langle 34 \rangle \langle 3|1+2|3 \rangle}{\langle 12 \rangle \langle 24 \rangle \langle 56 \rangle \langle 4|1+2|3 \rangle \langle 4|5+6|4 \rangle}
\end{aligned}$$