

$$\begin{aligned}
& \frac{1[12]\langle 46 \rangle^2 \langle 3|1+2|3]}{\langle 23 \rangle^2 \langle 56 \rangle \langle 4|1+3|2 \rangle s_{123}} + \\
& \frac{-1/2[15]\langle 24 \rangle \langle 4|2+3|1 \rangle \langle 6|1+5|2]}{\langle 23 \rangle \langle 34 \rangle \langle 56 \rangle [56] \langle 2|3+4|1 \rangle s_{234}} + \\
& \frac{1[15]\langle 24 \rangle \langle 6|1+5|2]}{\langle 23 \rangle^2 \langle 56 \rangle [56] s_{234}} + \\
& \frac{3/2[12]\langle 24 \rangle^2 [25]^2 \langle 1|5+6|1]}{\langle 23 \rangle \langle 34 \rangle [56] \langle 2|5+6|2 \rangle^3} + \\
& \frac{3/4[12][15]\langle 24 \rangle^2 [25] \langle 1|5+6|1]}{\langle 23 \rangle \langle 34 \rangle [56] \langle 2|3+4|1 \rangle \langle 2|5+6|2 \rangle^2} + \\
& \frac{1/4[12]\langle 16 \rangle \langle 24 \rangle [25] \langle 1|5+6|1 \rangle \langle 4|1+3|2]}{\langle 23 \rangle \langle 34 \rangle \langle 56 \rangle [56] \langle 1|3+4|2 \rangle \langle 2|5+6|2 \rangle^2} + \\
& \frac{2[23]\langle 24 \rangle [25]^2 \langle 1|5+6|1]}{\langle 23 \rangle [56] \langle 1|3+4|2 \rangle \langle 2|5+6|2 \rangle^2} + \\
& \frac{-1/4[12][15]^2 \langle 24 \rangle^2 \langle 1|5+6|1]}{\langle 23 \rangle \langle 34 \rangle [56] \langle 2|3+4|1 \rangle^2 \langle 2|5+6|2 \rangle} + \\
& \frac{-1/4[12][15]\langle 24 \rangle^2 \langle 26 \rangle \langle 1|3+4|2]}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle [56] \langle 2|3+4|1 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{1/4 \langle 12 \rangle^2 [12]^2 [15]\langle 24 \rangle \langle 46 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle [56] \langle 2|3+4|1 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{\langle 24 \rangle \langle 26 \rangle [15] (1/4[12]\langle 14 \rangle [34] - 3/4 \langle 23 \rangle [23]^2 - 3/4 [23]\langle 24 \rangle [24] - 5/4 [23]\langle 34 \rangle [34])}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 2|3+4|1 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{-1/4[15]\langle 24 \rangle^2 [34] \langle 6|1+5|2]}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 2|3+4|1 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{1/4[12]^2 \langle 14 \rangle \langle 16 \rangle^2 \langle 24 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle \langle 1|3+4|2 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{1 \langle 14 \rangle [23][25] \langle 26 \rangle s_{134}}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 1|3+4|2 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{-1/2[23][25] \langle 46 \rangle s_{134}}{\langle 23 \rangle \langle 56 \rangle [56] \langle 1|3+4|2 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{-1[23][25] \langle 46 \rangle (s_{134} - s_{234})}{\langle 23 \rangle \langle 56 \rangle [56] \langle 1|3+4|2 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{1/2[23][25] \langle 34 \rangle [35]}{\langle 23 \rangle [56] \langle 1|3+4|2 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{1/2[13] \langle 14 \rangle \langle 24 \rangle [25] \langle 36 \rangle \dots \langle 10 \text{ terms} \rangle \dots + 1/4[23] \langle 24 \rangle \langle 34 \rangle [35] \langle 36 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle [56] \langle 2|5+6|2 \rangle} + \\
& \frac{-1/4[12][15]\langle 24 \rangle^2 \langle 26 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 2|3+4|1 \rangle^2} + \\
& \frac{-1/2[12][15]\langle 24 \rangle^2 \langle 26 \rangle s_{234}}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle [56] \langle 2|3+4|1 \rangle^2} + \\
& \frac{-1/4[15]\langle 24 \rangle^2 \langle 6|2+5|1]}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 2|3+4|1 \rangle^2} + \\
& \frac{-1[15]^2 \langle 24 \rangle^2 \langle 1|3+4|1]}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle [56] \langle 2|3+4|1 \rangle^2} + \\
& \frac{-1/2[15]\langle 24 \rangle \langle 6|2+3|1]}{\langle 23 \rangle^2 \langle 1|5+6|1 \rangle \langle 2|3+4|1 \rangle} + \\
& \frac{-1/2[15]^2 \langle 24 \rangle}{\langle 23 \rangle^2 [56] \langle 2|3+4|1 \rangle} + \\
& \frac{-1/2 \langle 14 \rangle [15]^2 \langle 24 \rangle \langle 56 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 1|5+6|1 \rangle \langle 2|3+4|1 \rangle} + \\
& \frac{-1/2[15]^2 [23] \langle 24 \rangle}{\langle 23 \rangle [56] \langle 1|5+6|1 \rangle \langle 2|3+4|1 \rangle} + \\
& \frac{\langle 24 \rangle [15] (-5/4[12] \langle 14 \rangle \langle 26 \rangle \dots \langle 3 \text{ terms} \rangle \dots - 5/2 \langle 34 \rangle [34] \langle 46 \rangle)}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle [56] \langle 2|3+4|1 \rangle} + \\
& \frac{\langle 24 \rangle [15] (-1/2 \langle 24 \rangle [25] - 5/4 \langle 34 \rangle [35] + 1/2 \langle 14 \rangle [15])}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle [56] \langle 2|3+4|1 \rangle} + \\
& \frac{-3/2 \langle 12 \rangle [25] \langle 34 \rangle \langle 6|1+5|2]}{\langle 13 \rangle \langle 23 \rangle^2 \langle 56 \rangle [56] \langle 1|3+4|2 \rangle} + \\
& \frac{3/2 \langle 24 \rangle [25] \langle 6|1+5|2]}{\langle 23 \rangle^2 \langle 56 \rangle [56] \langle 1|3+4|2 \rangle} + \\
& \frac{1[13][25] \langle 34 \rangle \langle 46 \rangle}{\langle 23 \rangle^2 \langle 56 \rangle [56] \langle 4|1+3|2 \rangle} + \\
& \frac{1/2[15] \langle 36 \rangle \langle 4|2+3|1]}{\langle 23 \rangle^2 \langle 1|5+6|1 \rangle \langle 3|2+4|1 \rangle} + \\
& \frac{-3/2 \langle 12 \rangle [15] \langle 34 \rangle \langle 6|1+5|2]}{\langle 13 \rangle \langle 23 \rangle^2 \langle 56 \rangle [56] \langle 1|5+6|1 \rangle} + \\
& \frac{3/2[15] \langle 24 \rangle \langle 6|1+5|2]}{\langle 23 \rangle^2 \langle 56 \rangle [56] \langle 1|5+6|1 \rangle} + \\
& \frac{-1[15] \langle 46 \rangle}{\langle 23 \rangle^2 \langle 56 \rangle [56]} + \\
& \frac{-1/2 \langle 14 \rangle [23][25] \langle 46 \rangle (s_{12} - s_{34})}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 1|3+4|2 \rangle \langle 4|1+3|2 \rangle} + \\
& \frac{1/2 \langle 14 \rangle [15] \langle 16 \rangle [23]}{\langle 12 \rangle \langle 23 \rangle \langle 1|5+6|1 \rangle \langle 1|3+4|2 \rangle} + \\
& \frac{1 \langle 12 \rangle [23][25] \langle 46 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 1|3+4|2 \rangle} + \\
& \frac{3/2[12] \langle 14 \rangle [25] \langle 46 \rangle}{\langle 13 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 4|1+3|2 \rangle} + \\
& \frac{1/2[12] \langle 14 \rangle [15] \langle 24 \rangle \langle 6|1+5|3]}{\langle 12 \rangle [13] \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle [56] \langle 1|5+6|1 \rangle} + \\
& \frac{7/2 \langle 14 \rangle [15] \langle 46 \rangle}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 1|5+6|1 \rangle} + \\
& \frac{-3/2[12] \langle 14 \rangle [15] \langle 6|1+5|3]}{\langle 13 \rangle [13] \langle 23 \rangle \langle 56 \rangle [56] \langle 1|5+6|1 \rangle} + \\
& \frac{877/36 \langle 46 \rangle^2}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle} + \\
& \frac{\langle 46 \rangle (5/2 \langle 24 \rangle [25] + 3/2 \langle 34 \rangle [35])}{\langle 12 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle [56]}
\end{aligned}$$