

$$\begin{aligned}
& \frac{-12\langle 26 \rangle [35] \langle 34 \rangle [13] s_{123}}{\langle 2 | 1+4 | 3 \rangle^3 \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{\langle 34 \rangle \langle 36 \rangle (8 \langle 23 \rangle \langle 24 \rangle \langle 26 \rangle [34] [23]^2 \dots \langle 4 \text{ terms} \rangle \dots + 8 \langle 24 \rangle \langle 26 \rangle [34] [13] [23] \langle 13 \rangle)}{\langle 12 \rangle \langle 56 \rangle \langle 2 | 1+4 | 3 \rangle^2 \langle 3 | 5+6 | 3 \rangle^2} + \\
& \frac{\langle 26 \rangle (6 \langle 46 \rangle \langle 23 \rangle [13] [23] \langle 13 \rangle \dots \langle 3 \text{ terms} \rangle \dots - 8 \langle 12 \rangle \langle 24 \rangle \langle 36 \rangle [12] [23])}{\langle 12 \rangle \langle 56 \rangle \langle 2 | 1+4 | 3 \rangle^2 \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{8 \langle 46 \rangle \langle 24 \rangle \langle 34 \rangle [34]^2 \langle 36 \rangle}{\langle 12 \rangle \langle 56 \rangle \langle 2 | 1+4 | 3 \rangle^2 \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{[35] (-14 [25] \langle 13 \rangle \langle 24 \rangle^2 [14] \dots \langle 9 \text{ terms} \rangle \dots + 2 [45] \langle 12 \rangle \langle 24 \rangle \langle 34 \rangle [12])}{\langle 12 \rangle [56] \langle 2 | 1+4 | 3 \rangle^2 \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{\langle 26 \rangle (-2 \langle 14 \rangle \langle 36 \rangle [13] \dots \langle 3 \text{ terms} \rangle \dots + 2 \langle 34 \rangle [34] \langle 46 \rangle)}{\langle 12 \rangle \langle 56 \rangle \langle 2 | 1+4 | 3 \rangle^2} + \\
& \frac{[35] (10 \langle 34 \rangle \langle 24 \rangle [45] \dots \langle 3 \text{ terms} \rangle \dots - 2 \langle 12 \rangle [15] \langle 34 \rangle)}{\langle 12 \rangle [56] \langle 2 | 1+4 | 3 \rangle^2} + \\
& \frac{-6 \langle 4 | 1+2 | 3 \rangle \langle 34 \rangle [34] \langle 36 \rangle^2 s_{123}}{\langle 12 \rangle \langle 56 \rangle \langle 2 | 1+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle^3} + \\
& \frac{\langle 34 \rangle \langle 36 \rangle (-3 \langle 34 \rangle [34]^2 \langle 46 \rangle \dots \langle 7 \text{ terms} \rangle \dots - 7 \langle 12 \rangle [23] \langle 26 \rangle [12])}{\langle 12 \rangle \langle 56 \rangle \langle 2 | 1+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle^2} + \\
& \frac{-1 [35] [45] \langle 4 | 5+6 | 4 \rangle \langle 34 \rangle^2}{\langle 12 \rangle [56] \langle 2 | 1+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle^2} + \\
& \frac{\langle 46 \rangle (-5 \langle 46 \rangle \langle 23 \rangle [34] [23] \langle 13 \rangle \dots \langle 9 \text{ terms} \rangle \dots - 2 \langle 24 \rangle \langle 24 \rangle \langle 36 \rangle [34] \langle 14 \rangle)}{\langle 12 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 2 | 1+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{\langle 14 \rangle \langle 36 \rangle [34] \langle 26 \rangle (-2 \langle 14 \rangle [12] + 2 [23] \langle 34 \rangle)}{\langle 12 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 2 | 1+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{\langle 46 \rangle (-9 \langle 12 \rangle \langle 36 \rangle [12] \dots \langle 3 \text{ terms} \rangle \dots - 8 \langle 46 \rangle \langle 13 \rangle [14])}{\langle 12 \rangle \langle 56 \rangle \langle 2 | 1+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{\langle 36 \rangle \langle 26 \rangle (-1 [23] \langle 34 \rangle + 10 \langle 14 \rangle [12])}{\langle 12 \rangle \langle 56 \rangle \langle 2 | 1+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{5 \langle 14 \rangle \langle 36 \rangle^2 [13]}{\langle 12 \rangle \langle 56 \rangle \langle 2 | 1+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{\langle 34 \rangle [45] (\langle 12 | 14 \rangle [15] + 12 [35] \langle 34 \rangle)}{\langle 12 \rangle [56] \langle 2 | 1+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{-1 \langle 12 \rangle \langle 46 \rangle^2 [13] \langle 4 | 1+3 | 2 \rangle}{\langle 24 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 2 | 1+4 | 3 \rangle \langle 4 | 1+2 | 3 \rangle} + \\
& \frac{\langle 46 \rangle (-1 \langle 14 \rangle \langle 26 \rangle [12] + 10/9 \langle 14 \rangle \langle 36 \rangle [13] + 1 [23] \langle 46 \rangle \langle 23 \rangle)}{\langle 24 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 2 | 1+4 | 3 \rangle} + \\
& \frac{\langle 46 \rangle (14 [23] \langle 13 \rangle \langle 26 \rangle \dots \langle 5 \text{ terms} \rangle \dots - 9 \langle 12 \rangle \langle 16 \rangle [12])}{\langle 12 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 2 | 1+4 | 3 \rangle} + \\
& \frac{-16 \langle 14 \rangle \langle 36 \rangle [23] \langle 26 \rangle}{\langle 12 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 2 | 1+4 | 3 \rangle} + \\
& \frac{-14 \langle 14 \rangle \langle 36 \rangle \langle 16 \rangle [13]}{\langle 12 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 2 | 1+4 | 3 \rangle} + \\
& \frac{14 \langle 14 \rangle [35] [45] \langle 34 \rangle}{\langle 12 \rangle [56] \langle 1 | 2+4 | 3 \rangle \langle 2 | 1+4 | 3 \rangle} + \\
& \frac{14 [35]^2 \langle 13 \rangle \langle 34 \rangle}{\langle 12 \rangle [56] \langle 1 | 2+4 | 3 \rangle \langle 2 | 1+4 | 3 \rangle} + \\
& \frac{-4 \langle 13 \rangle \langle 26 \rangle^2 [13] \langle 34 \rangle}{\langle 12 \rangle \langle 24 \rangle \langle 56 \rangle \langle 2 | 1+4 | 3 \rangle \langle 2 | 1+3 | 4 \rangle} + \\
& \frac{2 \langle 34 \rangle \langle 26 \rangle [45]}{\langle 12 \rangle \langle 2 | 1+4 | 3 \rangle \langle 2 | 1+3 | 4 \rangle} + \\
& \frac{-2 \langle 34 \rangle \langle 24 \rangle [45]^2}{\langle 12 \rangle [56] \langle 2 | 1+4 | 3 \rangle \langle 2 | 1+3 | 4 \rangle} + \\
& \frac{\langle 34 \rangle \langle 36 \rangle (4 \langle 14 \rangle [34] \langle 16 \rangle [12] - 4 \langle 12 \rangle [23]^2 \langle 36 \rangle)}{\langle 12 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle^2} + \\
& \frac{\langle 36 \rangle \langle 34 \rangle (4 [23] \langle 36 \rangle + 1 [24] \langle 46 \rangle + 11 \langle 16 \rangle [12])}{\langle 12 \rangle \langle 56 \rangle \langle 3 | 5+6 | 3 \rangle^2} + \\
& \frac{4 \langle 16 \rangle^2 \langle 34 \rangle [23] s_{123}}{\langle 12 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle^2 \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{\langle 46 \rangle (-4 [24] \langle 14 \rangle \langle 36 \rangle + 6 [24] \langle 13 \rangle \langle 46 \rangle - 19 [23] \langle 13 \rangle \langle 36 \rangle - 12 \langle 16 \rangle \langle 13 \rangle [12])}{\langle 12 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{\langle 14 \rangle \langle 36 \rangle (2 [23] \langle 36 \rangle + 2 \langle 16 \rangle [12])}{\langle 12 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{-2 [25] \langle 34 \rangle \langle 14 \rangle [45]}{\langle 12 \rangle [56] \langle 1 | 2+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{-18 [35] [25] \langle 13 \rangle \langle 34 \rangle}{\langle 12 \rangle [56] \langle 1 | 2+4 | 3 \rangle \langle 3 | 5+6 | 3 \rangle} + \\
& \frac{-1/3 \langle 46 \rangle^2 \langle 23 \rangle [24] \langle 34 \rangle [12] [56]}{\langle 24 \rangle (\langle 3 | 2 | 5+6 | 4 | 3 \rangle - \langle 2 | 1 | 5+6 | 4 | 2 \rangle)^2} + \\
& \frac{\langle 34 \rangle^2 \langle 3 | 1+2 | 4 \rangle \langle 46 \rangle (2/3 [23] \langle 26 \rangle + 2/3 [34] \langle 46 \rangle)}{\langle 24 \rangle^2 \langle 56 \rangle \langle 1 | 2+3 | 4 \rangle (\langle 3 | 2 | 5+6 | 4 | 3 \rangle - \langle 2 | 1 | 5+6 | 4 | 2 \rangle)} + \\
& \frac{\langle 34 \rangle \langle 46 \rangle (2/3 \langle 46 \rangle \langle 34 \rangle [14] - 2/3 [23] \langle 46 \rangle [12] - 2/3 \langle 36 \rangle \langle 24 \rangle [12])}{\langle 24 \rangle^2 \langle 56 \rangle (\langle 3 | 2 | 5+6 | 4 | 3 \rangle - \langle 2 | 1 | 5+6 | 4 | 2 \rangle)} + \\
& \frac{-4 \langle 14 \rangle \langle 34 \rangle \langle 26 \rangle^2 \langle 1 | 3+4 | 2 \rangle}{\langle 12 \rangle \langle 24 \rangle^2 \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 1 | 2+3 | 4 \rangle} + \\
& \frac{-4 \langle 34 \rangle \langle 46 \rangle^2}{\langle 24 \rangle^2 \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle} + \\
& \frac{\langle 16 \rangle \langle 34 \rangle \langle 26 \rangle (-4 [24] \langle 14 \rangle - 8 [23] \langle 13 \rangle)}{\langle 12 \rangle \langle 24 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 1 | 2+3 | 4 \rangle} + \\
& \frac{-4 [24] \langle 16 \rangle \langle 34 \rangle \langle 46 \rangle}{\langle 24 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 1 | 2+3 | 4 \rangle} + \\
& \frac{10/9 [35] \langle 14 \rangle \langle 34 \rangle \langle 46 \rangle}{\langle 12 \rangle \langle 24 \rangle \langle 1 | 2+4 | 3 \rangle \langle 4 | 1+2 | 3 \rangle} + \\
& \frac{\langle 14 \rangle \langle 46 \rangle^2 (10/9 \langle 14 \rangle [14] + 10/9 [24] \langle 24 \rangle + 28/9 \langle 12 \rangle [12])}{\langle 12 \rangle \langle 24 \rangle \langle 56 \rangle \langle 1 | 2+4 | 3 \rangle \langle 4 | 1+2 | 3 \rangle} + \\
& \frac{10/9 [35]^2 \langle 14 \rangle \langle 34 \rangle^2}{\langle 12 \rangle \langle 24 \rangle [56] \langle 1 | 2+4 | 3 \rangle \langle 4 | 1+2 | 3 \rangle} + \\
& \frac{4 \langle 34 \rangle [45]^2 s_{123} \langle 23 \rangle}{\langle 12 \rangle [56] \langle 2 | 1+3 | 4 \rangle^2 \langle 4 | 5+6 | 4 \rangle} + \\
& \frac{8/3 \langle 34 \rangle^2 \langle 46 \rangle [45]}{\langle 24 \rangle^2 \langle 1 | 2+3 | 4 \rangle \langle 4 | 5+6 | 4 \rangle} + \\
& \frac{-8/3 \langle 34 \rangle \langle 36 \rangle \langle 46 \rangle}{\langle 24 \rangle^2 \langle 56 \rangle \langle 1 | 2+3 | 4 \rangle} + \\
& \frac{4 \langle 34 \rangle \langle 46 \rangle^2 \langle 23 \rangle}{\langle 12 \rangle \langle 24 \rangle^2 \langle 56 \rangle \langle 4 | 5+6 | 4 \rangle}
\end{aligned}$$