

$$\begin{aligned}
& \frac{-7/8\langle 16 \rangle \langle 3|1+4|2 \rangle (s_{123}-s_{234}) \langle 1|2+3|5 \rangle (s_{13}-s_{24})}{\langle 14 \rangle \langle 1|2+3|4 \rangle^2 \langle 2|1+4|3 \rangle \Delta_{14|23|56}} + \\
& \frac{7/2\langle 16 \rangle \langle 13 \rangle^3 \langle 15 \rangle \langle 23 \rangle}{\langle 12 \rangle \langle 14 \rangle \langle 1|2+3|1 \rangle \langle 1|2+3|4 \rangle^2} + \\
& \frac{7/2\langle 13 \rangle^2 \langle 16 \rangle \langle 25 \rangle}{\langle 12 \rangle \langle 14 \rangle \langle 1|2+3|4 \rangle^2} + \\
& \frac{7/4\langle 6|1+4|5 \rangle (s_{24}-s_{13}) s_{123} (s_{124}-s_{134})}{\langle 1|2+3|4 \rangle \langle 2|1+4|3 \rangle^2 \Delta_{14|23|56}} + \\
& \frac{-7/2[13]^3 \langle 16 \rangle \langle 15 \rangle \langle 13 \rangle^4 \langle 12 \rangle \dots \langle 87 \text{ terms} \rangle \dots + 49/4[13] \langle 46 \rangle \langle 13 \rangle^3 \langle 23 \rangle \langle 34 \rangle^2 \langle 34 \rangle \langle 35 \rangle}{\langle 12 \rangle^2 \langle 14 \rangle \langle 14 \rangle \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 1|2+3|4 \rangle \langle 2|1+4|3 \rangle} + \\
& \frac{-49/64\langle 6|1+4|5 \rangle \langle 3|1+4|2 \rangle (s_{123}-s_{234}) s_{123} (s_{124}-s_{134})}{\langle 1|2+3|4 \rangle \langle 2|1+4|3 \rangle \Delta_{14|23|56}^2} + \\
& \frac{-21/8\langle 6|1+4|5 \rangle \langle 13 \rangle \langle 3|1+4|2 \rangle \langle 4|1+2|3 \rangle}{\langle 14 \rangle \langle 1|2+3|4 \rangle \langle 2|1+4|3 \rangle \Delta_{14|23|56}} + \\
& \frac{-7/8\langle 6|1+4|5 \rangle \langle 3|1+4|2 \rangle \langle 34 \rangle \langle 34 \rangle (s_{23}-s_{56})}{\langle 14 \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}) (-35/16\langle 26 \rangle \langle 13 \rangle \langle 24 \rangle \langle 25 \rangle \dots \langle 3 \text{ terms} \rangle \dots + 7/4\langle 12 \rangle \langle 24 \rangle \langle 25 \rangle \langle 36 \rangle)}{\langle 14 \rangle \langle 23 \rangle \langle 1|2+3|4 \rangle \langle 2|1+4|3 \rangle \Delta_{14|23|56}} + \\
& \frac{\langle 3|1+4|2 \rangle \langle 12 \rangle \langle 46 \rangle (s_{23}-s_{56}) (7/16\langle 24 \rangle \langle 24 \rangle \langle 36 \rangle + 7/16\langle 24 \rangle \langle 23 \rangle \langle 46 \rangle + 7/16\langle 34 \rangle \langle 36 \rangle \langle 34 \rangle)}{\langle 14 \rangle \langle 23 \rangle \langle 56 \rangle \langle 1|2+3|4 \rangle \langle 2|1+4|3 \rangle \Delta_{14|23|56}} + \\
& \frac{7/8\langle 6|1+4|5 \rangle [13] \langle 3|1+4|2 \rangle \langle 23 \rangle \langle 24 \rangle}{[14] \langle 1|2+3|4 \rangle \langle 2|1+4|3 \rangle \Delta_{14|23|56}} + \\
& \frac{[24] \langle 3|1+4|2 \rangle (s_{23}-s_{56}) (7/16\langle 26 \rangle [13] \langle 25 \rangle - 7/16[35] [13] \langle 36 \rangle - 7/8[35] \langle 26 \rangle [12] - 7/8\langle 46 \rangle [13] \langle 45 \rangle)}{[14] \langle 23 \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}) (-7/8[13] \langle 13 \rangle \langle 36 \rangle \langle 34 \rangle [12] \langle 35 \rangle \dots \langle 6 \text{ terms} \rangle \dots - 7/8[13]^2 \langle 13 \rangle \langle 36 \rangle \langle 23 \rangle \langle 45 \rangle)}{[14] \langle 23 \rangle \langle 56 \rangle [56] \langle 1|2+3|4 \rangle \langle 2|1+4|3 \rangle \Delta_{14|23|56}} + \\
& \frac{\langle 3|1+4|2 \rangle \langle 413/32[13] \langle 12 \rangle \langle 36 \rangle \langle 34 \rangle \langle 24 \rangle [24]^2 \langle 35 \rangle \dots \langle 213 \text{ terms} \rangle \dots - 63/16\langle 23 \rangle \langle 36 \rangle \langle 24 \rangle^2 [24] \langle 23 \rangle^2 \langle 45 \rangle)}{\langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 1|2+3|4 \rangle \langle 2|1+4|3 \rangle \Delta_{14|23|56}} + \\
& \frac{(s_{124}-s_{134}) (-21/8\langle 23 \rangle^2 \langle 36 \rangle \langle 34 \rangle \langle 23 \rangle^3 \langle 45 \rangle \dots \langle 42 \text{ terms} \rangle \dots - 21/8[13] \langle 13 \rangle \langle 23 \rangle \langle 36 \rangle \langle 34 \rangle \langle 23 \rangle^2 \langle 45 \rangle)}{\langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 1|2+3|4 \rangle \langle 2|1+4|3 \rangle \Delta_{14|23|56}} + \\
& \frac{-7/4\langle 25 \rangle \langle 46 \rangle \langle 13 \rangle \langle 12 \rangle^3 \langle 23 \rangle \langle 12 \rangle^2 \langle 24 \rangle \dots \langle 10 \text{ terms} \rangle \dots + 7/4\langle 13 \rangle^4 \langle 34 \rangle \langle 24 \rangle \langle 26 \rangle \langle 12 \rangle^2 \langle 35 \rangle}{\langle 12 \rangle^2 \langle 14 \rangle [14] \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 1|2+3|1 \rangle \langle 1|2+3|4 \rangle} + \\
& \frac{7/2[13] \langle 25 \rangle \langle 46 \rangle \langle 13 \rangle^2 \langle 12 \rangle^2 \langle 23 \rangle \langle 12 \rangle \langle 24 \rangle \dots \langle 26 \text{ terms} \rangle \dots - 7[13] \langle 25 \rangle \langle 46 \rangle \langle 13 \rangle^2 \langle 12 \rangle \langle 23 \rangle^2 \langle 24 \rangle \langle 23 \rangle}{\langle 12 \rangle^2 \langle 14 \rangle [14] \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 1|2+3|4 \rangle \langle 4|5+6|4 \rangle} + \\
& \frac{-63/4\langle 12 \rangle^2 \langle 36 \rangle \langle 34 \rangle^2 [24]^2 \langle 35 \rangle \dots \langle 53 \text{ terms} \rangle \dots - 7/2\langle 13 \rangle^2 \langle 23 \rangle^2 \langle 36 \rangle \langle 35 \rangle \langle 23 \rangle^2}{\langle 12 \rangle^2 \langle 14 \rangle [14] \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 1|2+3|4 \rangle} + \\
& \frac{-7\langle 24 \rangle s_{123} \langle 25 \rangle \langle 35 \rangle}{\langle 12 \rangle \langle 23 \rangle [56] \langle 2|1+4|3 \rangle^2} + \\
& \frac{7/4\langle 24 \rangle \langle 25 \rangle^2 (s_{13}-s_{24}) [12]}{[23] [56] \langle 2|1+3|2 \rangle \langle 2|5+6|2 \rangle \langle 2|1+4|3 \rangle} + \\
& \frac{7/4[13] \langle 25 \rangle \langle 12 \rangle^3 \langle 36 \rangle \langle 12 \rangle^2 \dots \langle 9 \text{ terms} \rangle \dots + 7/4[13] \langle 25 \rangle \langle 12 \rangle^2 \langle 36 \rangle \langle 24 \rangle [12] \langle 24 \rangle}{\langle 12 \rangle^2 [14] \langle 23 \rangle \langle 56 \rangle [56] \langle 2|1+3|2 \rangle \langle 2|1+4|3 \rangle} + \\
& \frac{[13] \langle 13 \rangle [12] \langle 7/4[14] \langle 26 \rangle \langle 14 \rangle^2 \langle 45 \rangle - 7/4\langle 46 \rangle \langle 12 \rangle \langle 14 \rangle [14] \langle 45 \rangle + 7/4\langle 14 \rangle \langle 36 \rangle \langle 34 \rangle \langle 24 \rangle \langle 45 \rangle - 7/4\langle 26 \rangle \langle 13 \rangle^2 [13] \langle 35 \rangle)}{\langle 12 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 2|1+3|2 \rangle \langle 2|1+4|3 \rangle \langle 2|1+3|4 \rangle} + \\
& \frac{10\langle 25 \rangle \langle 46 \rangle \langle 12 \rangle^4 \langle 34 \rangle [14]^2 [12] \dots \langle 161 \text{ terms} \rangle \dots + 7/2\langle 13 \rangle \langle 36 \rangle \langle 34 \rangle^2 \langle 34 \rangle \langle 24 \rangle^3 \langle 24 \rangle \langle 45 \rangle}{\langle 12 \rangle^2 \langle 14 \rangle [14] \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 2|1+4|3 \rangle \langle 2|1+3|4 \rangle} + \\
& \frac{3/2[13]^2 \langle 25 \rangle \langle 46 \rangle \langle 13 \rangle \langle 12 \rangle \langle 23 \rangle \langle 24 \rangle \langle 24 \rangle \dots \langle 141 \text{ terms} \rangle \dots - 17/4\langle 13 \rangle \langle 24 \rangle^3 \langle 26 \rangle [12] \langle 24 \rangle^2 \langle 35 \rangle}{\langle 12 \rangle^2 [13] \langle 14 \rangle [14] \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 2|1+4|3 \rangle} + \\
& \frac{-7/8\langle 46 \rangle^2 s_{134} \langle 3|1+4|2 \rangle}{\langle 14 \rangle \langle 56 \rangle \langle 2|1+4|3 \rangle \Delta_{14|23|56}} + \\
& \frac{7/4\langle 46 \rangle^2 \langle 3|1+4|2 \rangle [56]}{\langle 14 \rangle \langle 2|1+4|3 \rangle \Delta_{14|23|56}} + \\
& \frac{7/8\langle 6|1+4|5 \rangle [13] \langle 3|1+4|2 \rangle [12]}{[14] \langle 23 \rangle \langle 2|1+4|3 \rangle \Delta_{14|23|56}} + \\
& \frac{-1/4\langle 46 \rangle^2 \langle 13 \rangle [14] [12]^2}{[13] \langle 56 \rangle \langle 1|2+3|1 \rangle^2 \langle 4|5+6|4 \rangle} + \\
& \frac{5/2\langle 13 \rangle [15]^2 [12]^2}{[13] [14] [56] \langle 1|2+3|1 \rangle^2} + \\
& \frac{1/4\langle 46 \rangle \langle 14 \rangle [12]^3 \langle 45 \rangle}{[13] [23] \langle 1|2+3|1 \rangle \langle 4|5+6|4 \rangle^2} + \\
& \frac{\langle 46 \rangle \langle 3/4[13]^3 \langle 13 \rangle^3 \langle 36 \rangle \langle 24 \rangle \langle 24 \rangle \dots \langle 10 \text{ terms} \rangle \dots - 1/4\langle 46 \rangle \langle 12 \rangle \langle 23 \rangle^2 \langle 34 \rangle \langle 34 \rangle [12] \langle 24 \rangle \langle 23 \rangle)}{\langle 12 \rangle^2 [13] \langle 14 \rangle [14] \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle \langle 1|2+3|1 \rangle \langle 4|5+6|4 \rangle} + \\
& \frac{-1/4[13]^2 \langle 25 \rangle \langle 13 \rangle^2 \langle 36 \rangle \langle 24 \rangle^2 \langle 24 \rangle \dots \langle 35 \text{ terms} \rangle \dots + 1/4[13] \langle 25 \rangle \langle 46 \rangle \langle 13 \rangle \langle 23 \rangle^2 \langle 24 \rangle \langle 24 \rangle \langle 23 \rangle}{\langle 12 \rangle^2 [13] \langle 14 \rangle [14] \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 1|2+3|1 \rangle} + \\
& \frac{-1/4\langle 46 \rangle \langle 13 \rangle \langle 24 \rangle [12]^2 \langle 45 \rangle}{\langle 12 \rangle [13] \langle 2|1+3|2 \rangle \langle 4|5+6|4 \rangle^2} + \\
& \frac{-3/4\langle 46 \rangle \langle 3|1+2|4 \rangle [45] \langle 34 \rangle^2}{\langle 14 \rangle \langle 23 \rangle \langle 2|1+3|4 \rangle \langle 4|5+6|4 \rangle^2} + \\
& \frac{-1/4\langle 46 \rangle^2 \langle 13 \rangle \langle 23 \rangle [12] \langle 24 \rangle}{\langle 12 \rangle \langle 56 \rangle \langle 2|1+3|2 \rangle^2 \langle 4|5+6|4 \rangle} + \\
& \frac{\langle 13 \rangle [12] \langle 2/46 \rangle \langle 13 \rangle^2 [13]^2 \langle 45 \rangle \dots \langle 11 \text{ terms} \rangle \dots - 5/4\langle 13 \rangle \langle 24 \rangle \langle 26 \rangle [12] \langle 23 \rangle \langle 45 \rangle}{\langle 12 \rangle^2 [14] \langle 23 \rangle \langle 56 \rangle [56] \langle 2|1+3|2 \rangle \langle 4|5+6|4 \rangle} + \\
& \frac{3/4\langle 13 \rangle^2 \langle 23 \rangle \langle 34 \rangle \langle 24 \rangle^2 \langle 26 \rangle [12]^2 \langle 23 \rangle \langle 45 \rangle \dots \langle 51 \text{ terms} \rangle \dots + 7/2\langle 23 \rangle^4 \langle 36 \rangle \langle 34 \rangle \langle 34 \rangle \langle 35 \rangle [23]^3}{\langle 12 \rangle^2 [13] \langle 14 \rangle [14] \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 2|1+3|4 \rangle \langle 4|5+6|4 \rangle} + \\
& \frac{7/2[13]^2 \langle 25 \rangle \langle 13 \rangle^2 \langle 14 \rangle \langle 36 \rangle \langle 24 \rangle [14] \dots \langle 134 \text{ terms} \rangle \dots + 3/4[13] \langle 46 \rangle \langle 13 \rangle \langle 23 \rangle^2 \langle 34 \rangle \langle 24 \rangle \langle 35 \rangle \langle 23 \rangle}{\langle 12 \rangle^2 [13] \langle 14 \rangle [14] \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 4|5+6|4 \rangle} + \\
& \frac{-7/4\langle 23 \rangle^2 \langle 25 \rangle^2 s_{123}}{\langle 12 \rangle [56] \langle 2|1+3|2 \rangle^2 \langle 2|1+3|4 \rangle} + \\
& \frac{-21/4\langle 24 \rangle \langle 25 \rangle^2 (s_{13}-s_{24}) [12]^2}{[13] \langle 23 \rangle [56] \langle 2|1+3|2 \rangle \langle 2|5+6|2 \rangle^2} + \\
& \frac{-7/4\langle 46 \rangle \langle 26 \rangle [12]^2 \langle 24 \rangle (s_{13}-s_{24})}{[13] \langle 23 \rangle \langle 56 \rangle \langle 2|1+3|2 \rangle \langle 2|5+6|2 \rangle \langle 2|1+3|4 \rangle} + \\
& \frac{5/2(s_{13}-s_{24}) \langle 25 \rangle \langle 2|1+3|5 \rangle [12]^2}{[13] \langle 23 \rangle [56] \langle 2|1+3|2 \rangle \langle 2|5+6|2 \rangle \langle 2|1+3|4 \rangle} + \\
& \frac{-3/4[15] \langle 25 \rangle \langle 24 \rangle [12] \langle 24 \rangle (s_{13}-s_{24})}{[13] \langle 23 \rangle [56] \langle 2|1+3|2 \rangle \langle 2|5+6|2 \rangle \langle 2|1+3|4 \rangle} + \\
& \frac{21/4\langle 24 \rangle \langle 25 \rangle^2 [12]^2}{[13] \langle 23 \rangle [56] \langle 2|1+3|2 \rangle \langle 2|5+6|2 \rangle} + \\
& \frac{7/4\langle 12 \rangle^3 \langle 36 \rangle [14] [12]^3 \langle 35 \rangle \dots \langle 40 \text{ terms} \rangle \dots + 3/4\langle 23 \rangle^2 \langle 24 \rangle \langle 26 \rangle [12] \langle 24 \rangle^2 \langle 35 \rangle \langle 23 \rangle}{\langle 12 \rangle^2 [13] [14] \langle 23 \rangle \langle 56 \rangle [56] \langle 2|1+3|2 \rangle \langle 2|1+3|4 \rangle} + \\
& \frac{7/2\langle 13 \rangle \langle 14 \rangle^2 \langle 36 \rangle \langle 24 \rangle [14]^3 \langle 35 \rangle \dots \langle 35 \text{ terms} \rangle \dots - 7/2\langle 23 \rangle \langle 36 \rangle \langle 34 \rangle \langle 34 \rangle \langle 24 \rangle^2 \langle 24 \rangle^2 \langle 35 \rangle}{\langle 12 \rangle^2 [13] \langle 14 \rangle [14] \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 2|1+3|4 \rangle} + \\
& \frac{-69/4[13] \langle 25 \rangle \langle 12 \rangle^2 \langle 36 \rangle \langle 34 \rangle [12] \dots \langle 68 \text{ terms} \rangle \dots - 41/4[13] \langle 13 \rangle \langle 23 \rangle \langle 36 \rangle \langle 34 \rangle \langle 35 \rangle \langle 23 \rangle}{\langle 12 \rangle^2 [13] \langle 14 \rangle [14] \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 12 \rangle \langle 23 \rangle \langle 56 \rangle} + \\
& \frac{-489/16\langle 12 \rangle \langle 35 \rangle \langle 36 \rangle \langle 34 \rangle^2 \dots \langle 10 \text{ terms} \rangle \dots - 17/8\langle 46 \rangle \langle 13 \rangle \langle 23 \rangle \langle 34 \rangle \langle 35 \rangle}{\langle 12 \rangle^2 [13] \langle 14 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 12 \rangle \langle 23 \rangle \langle 56 \rangle} + \\
& \frac{-373/16[13] \langle 25 \rangle \langle 46 \rangle \langle 23 \rangle \langle 24 \rangle \dots \langle 10 \text{ terms} \rangle \dots + 99/2[13] \langle 13 \rangle \langle 36 \rangle [12] \langle 35 \rangle}{\langle 12 \rangle^2 [13] [14] \langle 23 \rangle \langle 56 \rangle [56] \langle 12 \rangle \langle 23 \rangle \langle 56 \rangle} + \\
& \frac{-611/16\langle 12 \rangle [15] \langle 36 \rangle [12] \dots \langle 6 \text{ terms} \rangle \dots + 431/16[35] \langle 23 \rangle \langle 36 \rangle [12]}{\langle 12 \rangle^2 [13] [14] \langle 56 \rangle [56] \langle 12 \rangle \langle 23 \rangle \langle 56 \rangle} + \\
& \frac{-1549/48\langle 46 \rangle \langle 13 \rangle [13] \langle 25 \rangle \dots \langle 6 \text{ terms} \rangle \dots + 7\langle 46 \rangle \langle 35 \rangle \langle 24 \rangle \langle 34 \rangle}{\langle 12 \rangle^2 [13] \langle 23 \rangle \langle 56 \rangle [56] \langle 12 \rangle \langle 23 \rangle \langle 56 \rangle} + \\
& \frac{-3/4[15] \langle 46 \rangle \langle 13 \rangle \langle 34 \rangle [12]}{\langle 12 \rangle \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 4|2+3|1 \rangle} + \\
& \frac{-9/4\langle 46 \rangle [15] [12]^2 \langle 34 \rangle}{[13] \langle 23 \rangle \langle 23 \rangle \langle 56 \rangle [56] \langle 4|2+3|1 \rangle} +
\end{aligned}$$