

$$\begin{aligned}
& \frac{2/3i[12]^3\langle 16 \rangle^3\langle 23 \rangle}{\langle 12 \rangle \langle 14 \rangle \langle 45 \rangle \langle 56 \rangle [23] \langle 1|2+3|1 \rangle^2} + \\
& \frac{-1i[12]^2\langle 16 \rangle^2\langle 13 \rangle \langle 46 \rangle}{\langle 12 \rangle \langle 14 \rangle^2 \langle 45 \rangle \langle 56 \rangle [23] \langle 1|2+3|1 \rangle} + \\
& \frac{-1/3i[12]^3\langle 16 \rangle^3\langle 23 \rangle}{\langle 12 \rangle \langle 14 \rangle \langle 45 \rangle \langle 56 \rangle [23] \langle 1|2+3|1 \rangle s_{123}} + \\
& \frac{-1i[12]^2\langle 16 \rangle^2\langle 36 \rangle}{\langle 12 \rangle \langle 14 \rangle \langle 45 \rangle \langle 56 \rangle [23] \langle 1|2+3|1 \rangle} + \\
& \frac{-2/3i\langle 56 \rangle [15]^3\langle 13 \rangle^4}{\langle 12 \rangle \langle 14 \rangle \langle 15 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle \langle 1|5+6|1 \rangle^2} + \\
& \frac{-1i\langle 16 \rangle \langle 13 \rangle^3[15]^2\langle 34 \rangle}{\langle 12 \rangle \langle 14 \rangle^2 \langle 15 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle \langle 1|5+6|1 \rangle} + \\
& \frac{-1i\langle 16 \rangle \langle 13 \rangle^3[15]^2\langle 35 \rangle}{\langle 12 \rangle \langle 14 \rangle \langle 15 \rangle^2 \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle \langle 1|5+6|1 \rangle} + \\
& \frac{1/3i\langle 56 \rangle [15]^3\langle 13 \rangle^4}{\langle 12 \rangle \langle 14 \rangle \langle 15 \rangle \langle 23 \rangle \langle 34 \rangle \langle 56 \rangle \langle 1|5+6|1 \rangle s_{234}} + \\
& \frac{1/2i\langle 12 \rangle \langle 45 \rangle [25]^2\langle 13 \rangle \langle 46 \rangle}{\langle 12 \rangle \langle 14 \rangle^2 \langle 15 \rangle \langle 24 \rangle \langle 45 \rangle [23] \langle 56 \rangle} + \\
& \frac{-1/2i\langle 12 \rangle \langle 45 \rangle \langle 36 \rangle^2\langle 13 \rangle \langle 46 \rangle}{\langle 12 \rangle \langle 14 \rangle^2 \langle 15 \rangle \langle 23 \rangle \langle 24 \rangle \langle 45 \rangle \langle 56 \rangle} + \\
& \frac{-1/2i\langle 35 \rangle \langle 45 \rangle \langle 25 \rangle \langle 13 \rangle^3[15]^2}{\langle 12 \rangle \langle 14 \rangle \langle 15 \rangle^2 \langle 23 \rangle \langle 25 \rangle \langle 34 \rangle \langle 45 \rangle [16] \langle 56 \rangle} + \\
& \frac{-1/6i[12]^2\langle 14 \rangle^2\langle 16 \rangle \langle 23 \rangle \langle 25 \rangle^2[45]^3}{\langle 12 \rangle^2 \langle 14 \rangle \langle 15 \rangle \langle 24 \rangle \langle 25 \rangle [34] \langle 56 \rangle s_{123} s_{345}} +
\end{aligned}$$

$$(123456 \rightarrow 456123) +$$

$$(123456 \rightarrow 543216) +$$

$$(123456 \rightarrow 216543) +$$

$$\frac{-5/3i\langle 12 \rangle^2[12]^2\langle 16 \rangle^3[16]^3\langle 36 \rangle \dots \langle 161 \text{ terms} \rangle \dots + 1/3i\langle 13 \rangle [14] [23] \langle 24 \rangle \langle 36 \rangle^3[36]^2\langle 46 \rangle [46]}{\langle 12 \rangle \langle 14 \rangle \langle 15 \rangle [16] [23] [23] \langle 24 \rangle [34] \langle 45 \rangle \langle 56 \rangle [56] s_{123}} +$$

$$\frac{-1/3i\langle 12 \rangle^4[12]^4\langle 23 \rangle [23] \langle 36 \rangle \dots \langle 214 \text{ terms} \rangle \dots + 1/3i\langle 13 \rangle [14] [23] [23]^2\langle 24 \rangle \langle 36 \rangle^3[36]^2}{\langle 12 \rangle \langle 14 \rangle \langle 15 \rangle [16] [23] [23] \langle 24 \rangle [34] \langle 45 \rangle \langle 56 \rangle [56] s_{234}} +$$

$$\frac{1/3i\langle 12 \rangle^3[12]^3\langle 23 \rangle [23] \langle 36 \rangle \dots \langle 245 \text{ terms} \rangle \dots - 1/2i\langle 16 \rangle [16] [26] [26] \langle 36 \rangle \langle 46 \rangle^2[46]^2}{\langle 12 \rangle \langle 14 \rangle \langle 15 \rangle [16] [23] [23] \langle 24 \rangle [34] \langle 45 \rangle \langle 56 \rangle [56]} +$$

$$(123456 \rightarrow 543216) +$$

$$\frac{\langle 14 \rangle (1/3i\langle 12 \rangle^2[12]^3[14] \langle 34 \rangle [34] [45] \dots \langle 78 \text{ terms} \rangle \dots + 1/3i[12]^2\langle 23 \rangle \langle 24 \rangle^2[24]^2[34] \langle 45 \rangle)}{\langle 12 \rangle \langle 15 \rangle [16] [23] \langle 24 \rangle [34] \langle 45 \rangle [56] s_{123} s_{345}} +$$

$$\frac{52/3i\langle 12 \rangle^3\langle 14 \rangle \langle 36 \rangle [12]^3[14]^2 \dots \langle 504 \text{ terms} \rangle \dots + 1/3i\langle 24 \rangle \langle 36 \rangle^3\langle 46 \rangle [13] [26] [34] [46]^2}{\langle 12 \rangle \langle 15 \rangle [16] [23] [23] \langle 24 \rangle [34] \langle 45 \rangle \langle 56 \rangle [56] s_{123}} +$$

$$\frac{82/3i\langle 12 \rangle^5[12]^5\langle 36 \rangle^2 \dots \langle 1573 \text{ terms} \rangle \dots + 4/3i\langle 23 \rangle [24] \langle 36 \rangle^5[36]^4\langle 46 \rangle}{\langle 12 \rangle \langle 15 \rangle [16] [16] [23] [23] \langle 24 \rangle [34] [34] \langle 45 \rangle \langle 56 \rangle [56] s_{234}} +$$

$$\frac{-1i\langle 12 \rangle^3[12]^4\langle 13 \rangle [35] \langle 36 \rangle \dots \langle 506 \text{ terms} \rangle \dots + 8/3i[25] \langle 35 \rangle [35] \langle 36 \rangle \langle 56 \rangle^3[56]^3}{\langle 12 \rangle \langle 15 \rangle [16] [16] [23] \langle 24 \rangle [34] [34] \langle 45 \rangle [56] s_{345}} +$$

$$\frac{-82/3i\langle 12 \rangle^4[12]^4\langle 36 \rangle^2 \dots \langle 1032 \text{ terms} \rangle \dots + 4i\langle 23 \rangle [24] \langle 36 \rangle \langle 46 \rangle^4[46]^3}{\langle 12 \rangle \langle 15 \rangle [16] [16] [23] [23] \langle 24 \rangle [34] [34] \langle 45 \rangle \langle 56 \rangle [56]} +$$

$$\frac{-2/9i\langle 36 \rangle^4}{\langle 12 \rangle \langle 16 \rangle \langle 23 \rangle \langle 34 \rangle \langle 45 \rangle \langle 56 \rangle}$$