

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

$$(123456 \rightarrow 456123) +$$

$$(123456 \rightarrow 543216) +$$

$$(123456 \rightarrow 216543) +$$

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

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

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

$$(123456 \rightarrow 543216) +$$

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

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

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

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

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

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