

$$\begin{aligned}
& \frac{1/8\langle 6|1+3|5\rangle\langle s_{14}-s_{23}\rangle[24]\langle s_{124}-s_{234}\rangle\langle 14\rangle}{\Delta_{13|24|56}\langle 1|2+4|3\rangle^2\langle 2|1+3|4\rangle} + \\
& \frac{-5/12\langle 6|1+5|3\rangle\langle 23\rangle\langle 16\rangle[24]}{[34]^2\langle 56\rangle\langle 1|2+4|3\rangle^2} + \\
& \frac{-5/3[23]^2\langle 16\rangle\langle 6|1+5|4\rangle}{[34]^2\langle 56\rangle\langle 1|2+4|3\rangle^2} + \\
& \frac{2[23]^2\langle 16\rangle\langle 26\rangle[24]}{[34]^2\langle 56\rangle\langle 1|2+4|3\rangle^2} + \\
& \frac{3/2[23]^2\langle 24\rangle\langle 36\rangle[24]\langle 16\rangle}{[34]\langle 56\rangle\langle 1|2+4|3\rangle^2\langle 3|2+4|3\rangle} + \\
& \frac{-1/8\langle s_{123}-s_{134}\rangle\langle 6|1+3|5\rangle\langle 23\rangle\langle s_{14}-s_{23}\rangle[24]}{\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle^2} + \\
& \frac{1/4[13]\langle 26\rangle[35]\langle s_{14}-s_{23}\rangle[24]^2}{[13][34]^2\langle 56\rangle[56]\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{-9/4[13]\langle 26\rangle[25][24]\dots\langle 5\text{ terms}\rangle\dots-1/2[13]\langle 16\rangle[12][45]}{[13][34]\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{\langle 36\rangle(1/4[13][23][34]\langle 36\rangle+1[13][23]\langle 26\rangle[24]-2[13]\langle 46\rangle[34][24]-1/4[23][12][34]\langle 26\rangle)}{[13][34]\langle 56\rangle\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{7/4[13]\langle 26\rangle[12][24]\langle 16\rangle}{[13][34]\langle 56\rangle\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{[13][45]\langle 2|14|25\rangle\langle 14\rangle-9/4[23]\langle 34\rangle[45]}{[13][34][56]\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{-2[13][35][24]\langle 23\rangle[25]}{[13][34][56]\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{-1/16\langle 46\rangle\langle s_{15}+s_{16}+s_{35}+s_{36}\rangle\langle 36\rangle[12]\langle s_{135}-s_{136}\rangle[34]}{[13]\langle 56\rangle\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{1/8\langle 46\rangle[34]\langle 6|1+3|5\rangle[12]\langle 35\rangle\langle s_{15}+s_{16}+s_{35}+s_{36}\rangle}{[13]\langle 56\rangle\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{1/8\langle 6|1+3|5\rangle\langle 24\rangle[12]^2\langle 13\rangle[34]}{[13]\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{[12]\langle s_{15}+s_{16}+s_{35}+s_{36}\rangle\langle 6|1+3|5\rangle\langle 3|8|14\rangle\langle 14\rangle+1/8\langle 23\rangle[23]+1/4[12]\langle 12\rangle}{[13]\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{-7/8\langle 46\rangle\langle 6|1+3|5\rangle\langle s_{13}-s_{24}\rangle[24]\langle 35\rangle}{\langle 56\rangle\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{7/16\langle 46\rangle\langle s_{13}-s_{24}\rangle\langle 36\rangle[24]\langle s_{135}-s_{136}\rangle}{\langle 56\rangle\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{\langle 35\rangle\langle 46\rangle\langle 6|1+3|5\rangle(-1/4[23]\langle 35\rangle[45]-1/4[23][46]\langle 36\rangle+1/4[35]\langle 35\rangle[24]+1/4[36]\langle 36\rangle[24])}{\langle 56\rangle\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{-1/8\langle 46\rangle\langle 3|1+4|2\rangle\langle 36\rangle\langle s_{135}-s_{136}\rangle[34]}{\langle 56\rangle\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{[25]\langle s_{13}-s_{24}\rangle\langle 6|1+3|5\rangle(-1\langle 23\rangle[26]+9/8[46]\langle 34\rangle)}{[56]\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{[25]\langle s_{135}-s_{136}\rangle\langle s_{13}-s_{24}\rangle(-1/2\langle 23\rangle[25]+9/16\langle 34\rangle[45])}{[56]\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{[46]\langle 34\rangle[25]\langle 6|1+3|5\rangle(-1/4[36]\langle 36\rangle-1/4\langle 35\rangle[35])}{[56]\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{-1/8\langle 3|1+2|4\rangle[35][25]\langle s_{135}-s_{136}\rangle\langle 34\rangle}{[56]\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{\langle s_{13}-s_{24}\rangle\langle 6|1+3|5\rangle(11/8\langle 34\rangle[24]-1/4\langle 35\rangle[25]+7/16[26]\langle 36\rangle)}{\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{\langle 6|1+3|5\rangle(1/2[36]\langle 35\rangle\langle 36\rangle[25]\dots\langle 19\text{ terms}\rangle\dots-1/4[23]\langle 35\rangle[56]\langle 36\rangle)}{\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{\langle s_{135}-s_{136}\rangle(-1/8[45][23]\langle 34\rangle\langle 36\rangle\dots\langle 3\text{ terms}\rangle\dots+1/8[35]\langle 34\rangle\langle 36\rangle[24])}{\Delta_{13|24|56}\langle 1|2+4|3\rangle\langle 2|1+3|4\rangle} + \\
& \frac{-3/2[13]\langle 26\rangle[23]^2\langle 36\rangle[24]}{[13][34]^2\langle 56\rangle\langle 1|2+4|3\rangle\langle 3|2+4|3\rangle} + \\
& \frac{-8/3[23][35]\langle 36\rangle[24]\dots\langle 3\text{ terms}\rangle\dots+2[23]\langle 16\rangle[12][45]}{[34]^2\langle 56\rangle[56]\langle 1|2+4|3\rangle} + \\
& \frac{[23]\langle 36\rangle(3/2[13]\langle 46\rangle[24]+1/2\langle 46\rangle[12][34]-1/2[23][12]\langle 26\rangle)}{[13][34]\langle 56\rangle\langle 1|2+4|3\rangle\langle 3|2+4|3\rangle} + \\
& \frac{-5/2[23]\langle 36\rangle\langle 6|1+5|2\rangle}{[34]\langle 56\rangle\langle 1|2+4|3\rangle\langle 3|2+4|3\rangle} + \\
& \frac{1/6[14]^2\langle 3|1+2|5\rangle\langle 24\rangle[45]}{[34][56]\langle 2|3+4|1\rangle\langle 2|1+3|4\rangle^2} + \\
& \frac{\langle 23\rangle[45]^2[14](-1/12[13]\langle 34\rangle+1/12[12]\langle 24\rangle)}{[34][56]\langle 2|3+4|1\rangle\langle 2|1+3|4\rangle^2} + \\
& \frac{[14][45](1/12\langle 23\rangle[35][24]+1/4[12][45]\langle 12\rangle)}{[34]^2[56]\langle 2|1+3|4\rangle^2} + \\
& \frac{-7/12[14][45]\langle 23\rangle[25]}{[34][56]\langle 2|1+3|4\rangle^2} + \\
& \frac{-1/6[13][15]^2\langle 23\rangle\langle 3|1+2|4\rangle}{[34][56]\langle 2|3+4|1\rangle^2\langle 2|1+3|4\rangle} + \\
& \frac{1/6[13]^2[45][15]\langle 23\rangle[24]}{[13][34]^2[56]\langle 2|3+4|1\rangle\langle 2|1+3|4\rangle} + \\
& \frac{[14]\langle 26\rangle[24](-1/2\langle 26\rangle[12]-1/6[13]\langle 36\rangle)}{[34]^2\langle 56\rangle\langle 2|3+4|1\rangle\langle 2|1+3|4\rangle} + \\
& \frac{[14][12]\langle 26\rangle(1/2[14]\langle 46\rangle-1/4[13]\langle 36\rangle)}{[13][34]\langle 56\rangle\langle 2|3+4|1\rangle\langle 2|1+3|4\rangle} + \\
& \frac{[15](11/12[13][25]\langle 23\rangle[14]\dots\langle 4\text{ terms}\rangle\dots-1/4[14]^2[15]\langle 14\rangle)}{[13][34][56]\langle 2|3+4|1\rangle\langle 2|1+3|4\rangle} + \\
& \frac{-1/12[14]^2\langle 46\rangle\langle 36\rangle}{[34]\langle 56\rangle\langle 2|3+4|1\rangle\langle 2|1+3|4\rangle} + \\
& \frac{-5[13]^2[45]\langle 36\rangle[24]\dots\langle 9\text{ terms}\rangle\dots+9/4[13]\langle 16\rangle[25][14]^2}{[13][34]^2\langle 56\rangle[56]\langle 2|1+3|4\rangle} + \\
& \frac{-1/6\langle 3|2+4|1\rangle[15]^2}{[34][56]\langle 2|3+4|1\rangle^2} + \\
& \frac{[14][15](1/3[12][35]-1/3[13][25])}{[13][34]^2[56]\langle 2|3+4|1\rangle} + \\
& \frac{-5/12[15]^2[12]}{[13][34][56]\langle 2|3+4|1\rangle}
\end{aligned}$$