

$$\begin{aligned}
& \frac{\langle 16 \rangle (s_{14} - s_{23}) \langle 3 | 1 + 4 | 2 \rangle \langle -3/8 | 13 \rangle \langle 36 \rangle - 3/16 | 14 \rangle \langle 46 \rangle}{\langle 56 \rangle \Delta_{14|23|56} \langle 1 | 2 + 3 | 4 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{9/32 | 25 \rangle \langle s_{123} - s_{234} \rangle \langle 3 | 1 + 4 | 2 \rangle \langle 26 \rangle}{\langle 1 | 2 + 3 | 4 \rangle \langle 2 | 1 + 4 | 3 \rangle \Delta_{14|23|56}} + \\
& \frac{3/32 | 25 \rangle \langle s_{124} - s_{134} \rangle \langle 3 | 1 + 4 | 2 \rangle \langle 26 \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 -3/16 | 16 \rangle | 12 \rangle | 15 \rangle \langle 12 \rangle \dots \langle 4 \text{ terms} \rangle \dots + 3/8 | 25 \rangle \langle 12 \rangle | 13 \rangle \langle 36 \rangle}{\langle 1 | 2 + 3 | 4 \rangle \langle 2 | 1 + 4 | 3 \rangle \Delta_{14|23|56}} + \\
& \frac{-1/12 \langle 1 | 3 + 4 | 2 \rangle \langle 26 \rangle | 24 \rangle \langle 46 \rangle \langle 3 | 2 + 4 | 1 \rangle}{\langle 56 \rangle \Delta_{13|24|56} \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& (123456 \rightarrow -432165) + \\
& \frac{9/4 \langle 36 \rangle | 23 \rangle | 13 \rangle \langle 26 \rangle}{[34] \langle 56 \rangle \langle 2 | 1 + 4 | 3 \rangle^2} + \\
& \frac{9/4 | 25 \rangle | 35 \rangle \langle 23 \rangle | 13 \rangle}{[34] [56] \langle 2 | 1 + 4 | 3 \rangle^2} + \\
& \frac{\langle 16 \rangle | 13 \rangle \langle 47/4 | 16 \rangle | 12 \rangle | 13 \rangle \langle 12 \rangle - 3/4 | 24 \rangle | 13 \rangle \langle 12 \rangle \langle 46 \rangle - 11 \langle 46 \rangle | 12 \rangle | 12 \rangle | 34 \rangle - 11 | 23 \rangle | 24 \rangle \langle 24 \rangle \langle 26 \rangle}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{\langle 26 \rangle | 23 \rangle \langle 1 | 24 \rangle \langle 26 \rangle | 13 \rangle \langle 14 \rangle - 10 \langle 36 \rangle | 23 \rangle \langle 24 \rangle | 34 \rangle - 10 | 23 \rangle | 24 \rangle \langle 24 \rangle \langle 26 \rangle}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{| 35 \rangle \langle 14 \rangle | 15 \rangle \langle 3/4 | 34 \rangle | 14 \rangle \langle 14 \rangle + 139/12 | 24 \rangle | 13 \rangle \langle 12 \rangle}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{| 35 \rangle \langle 12 \rangle | 25 \rangle \langle -47/4 | 12 \rangle | 34 \rangle + 289/12 | 24 \rangle | 13 \rangle}{[34]^2 [56] \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{10 | 45 \rangle | 23 \rangle^2 | 35 \rangle \langle 23 \rangle}{[34]^2 [56] \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{-5/3 | 14 \rangle \langle 26 \rangle \langle 4 | 1 + 2 | 4 \rangle \langle 36 \rangle | 13 \rangle}{[34] \langle 56 \rangle \langle 2 | 3 + 4 | 1 \rangle \langle 2 | 1 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{| 14 \rangle | 15 \rangle \langle -5/3 | 35 \rangle \langle 13 \rangle \langle 23 \rangle | 13 \rangle - 5/3 | 45 \rangle | 24 \rangle \langle 24 \rangle^2}{[34] [56] \langle 2 | 3 + 4 | 1 \rangle \langle 2 | 1 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{5/3 | 45 \rangle^2 \langle 24 \rangle \langle 3 | 2 + 4 | 1 \rangle | 13 \rangle}{[34] [56] \langle 2 | 3 + 4 | 1 \rangle \langle 2 | 1 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{| 14 \rangle \langle 36 \rangle \langle 26 \rangle \langle -10/3 | 34 \rangle | 13 \rangle - 5 | 12 \rangle \langle 24 \rangle}{\langle 56 \rangle \langle 2 | 3 + 4 | 1 \rangle \langle 2 | 1 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{\langle 23 \rangle | 15 \rangle \langle 5 | 45 \rangle \langle 34 \rangle | 13 \rangle + 5/3 | 25 \rangle | 14 \rangle \langle 24 \rangle + 10/3 | 45 \rangle | 12 \rangle \langle 24 \rangle}{[56] \langle 2 | 3 + 4 | 1 \rangle \langle 2 | 1 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{\langle 26 \rangle \langle 27/4 | 36 \rangle | 12 \rangle \langle 24 \rangle | 34 \rangle^2 \dots \langle 3 \text{ terms} \rangle \dots - 10/3 \langle 14 \rangle | 14 \rangle | 34 \rangle \langle 36 \rangle | 13 \rangle}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 2 | 1 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{-7/4 | 25 \rangle | 14 \rangle^2 | 35 \rangle \langle 12 \rangle}{[34]^2 [56] \langle 2 | 1 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{| 13 \rangle \langle 16 \rangle \langle 27/4 | 14 \rangle \langle 46 \rangle \langle 23 \rangle - 1 | 12 \rangle \langle 23 \rangle \langle 26 \rangle - 41/12 | 14 \rangle \langle 24 \rangle \langle 36 \rangle}{\langle 24 \rangle [34] \langle 56 \rangle \langle 2 | 1 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{| 15 \rangle \langle -121/12 | 45 \rangle | 14 \rangle \langle 14 \rangle - 5 | 45 \rangle | 24 \rangle \langle 24 \rangle - 25/3 | 45 \rangle \langle 13 \rangle | 13 \rangle - 41/12 | 14 \rangle \langle 13 \rangle | 35 \rangle}{[34] [56] \langle 2 | 1 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{10/3 \langle 3 | 1 + 2 | 4 \rangle | 15 \rangle^2 \langle 24 \rangle | 13 \rangle}{[34] [56] \langle 2 | 3 + 4 | 1 \rangle^2 \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{| 13 \rangle \langle 26 \rangle \langle -1/3 | 12 \rangle \langle 13 \rangle | 13 \rangle \langle 26 \rangle \dots \langle 3 \text{ terms} \rangle \dots - 1 | 23 \rangle \langle 23 \rangle | 13 \rangle \langle 36 \rangle}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 2 | 3 + 4 | 1 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{| 15 \rangle \langle -10/3 | 45 \rangle \langle 34 \rangle | 13 \rangle^2 \langle 12 \rangle \dots \langle 3 \text{ terms} \rangle \dots + 7/3 \langle 23 \rangle | 45 \rangle | 23 \rangle \langle 24 \rangle | 13 \rangle}{\langle 24 \rangle [34]^2 [56] \langle 2 | 3 + 4 | 1 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{| 13 \rangle \langle 16 \rangle \langle -121/12 | 12 \rangle \langle 26 \rangle - 27/4 | 14 \rangle \langle 46 \rangle}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{\langle 26 \rangle \langle 229/12 | 24 \rangle | 13 \rangle \langle 46 \rangle + 68/3 | 23 \rangle | 13 \rangle \langle 36 \rangle - 127/4 \langle 46 \rangle | 12 \rangle | 34 \rangle + 71/3 | 23 \rangle | 12 \rangle \langle 26 \rangle}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{| 15 \rangle \langle 181/12 | 24 \rangle \langle 24 \rangle | 35 \rangle \dots \langle 4 \text{ terms} \rangle \dots + 49/12 | 14 \rangle | 35 \rangle \langle 14 \rangle}{\langle 24 \rangle [34]^2 [56] \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{-61/6 | 25 \rangle | 45 \rangle | 13 \rangle}{[34]^2 [56] \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{| 24 \rangle \langle 16 \rangle \langle -3/4 | 46 \rangle \langle 23 \rangle | 13 \rangle + 3/4 | 12 \rangle \langle 24 \rangle \langle 26 \rangle}{\langle 24 \rangle [34] \langle 56 \rangle \langle 1 | 2 + 3 | 4 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{-3/4 | 25 \rangle | 45 \rangle | 24 \rangle \langle 24 \rangle}{[34] [56] \langle 1 | 2 + 3 | 4 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{-25/3 \langle 46 \rangle | 13 \rangle \langle 36 \rangle}{\langle 24 \rangle [34] \langle 56 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{-10/3 | 14 \rangle \langle 46 \rangle^2}{\langle 24 \rangle [34] \langle 56 \rangle \langle 2 | 1 + 4 | 3 \rangle} + \\
& \frac{1/12 \langle 6 | 1 + 3 | 5 \rangle \langle s_{14} - s_{23} \rangle | 23 \rangle \langle s_{124} - s_{234} \rangle \langle 13 \rangle}{\Delta_{13|24|56} \langle 1 | 2 + 4 | 3 \rangle^2 \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{-7/2 \langle 16 \rangle | 23 \rangle^2 | 24 \rangle \langle 26 \rangle}{[34]^2 \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle^2} + \\
& \frac{| 23 \rangle \langle 16 \rangle \langle -17/6 | 23 \rangle \langle 36 \rangle + 1/3 | 24 \rangle \langle 46 \rangle}{[34] \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle^2} + \\
& \frac{1/3 \langle 6 | 1 + 3 | 5 \rangle | 14 \rangle \langle s_{14} - s_{23} \rangle \langle 13 \rangle \langle s_{123} - s_{134} \rangle}{\Delta_{13|24|56} \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle^2} + \\
& \frac{\langle 16 \rangle \langle 5/2 | 36 \rangle | 12 \rangle \langle 24 \rangle | 34 \rangle^2 \dots \langle 6 \text{ terms} \rangle \dots + 1 | 14 \rangle \langle 46 \rangle \langle 34 \rangle | 34 \rangle^2}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{\langle 26 \rangle \langle -17/6 | 46 \rangle | 24 \rangle \langle 34 \rangle | 34 \rangle^2 \dots \langle 4 \text{ terms} \rangle \dots - 17/6 | 24 \rangle^2 | 13 \rangle \langle 12 \rangle \langle 46 \rangle}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{| 15 \rangle \langle -4/3 | 24 \rangle^2 \langle 24 \rangle | 35 \rangle \langle 12 \rangle + 2 | 34 \rangle^2 | 45 \rangle \langle 34 \rangle \langle 14 \rangle + 1 | 34 \rangle | 14 \rangle | 45 \rangle \langle 14 \rangle^2}{\langle 24 \rangle [34]^2 [56] \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{1 \langle 36 \rangle \langle 46 \rangle \langle 34 \rangle | 34 \rangle}{\langle 24 \rangle \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{-1/6 \langle 6 | 1 + 3 | 5 \rangle \langle 34 \rangle^2 \langle 12 \rangle | 24 \rangle | 13 \rangle}{\langle 24 \rangle \Delta_{13|24|56} \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{\langle 34 \rangle \langle s_{13} - s_{56} \rangle \langle 6 | 1 + 3 | 5 \rangle \langle -2/3 | 14 \rangle \langle 14 \rangle - 1/4 \langle 34 \rangle | 34 \rangle}{\langle 24 \rangle \Delta_{13|24|56} \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{-1/4 | 15 \rangle \langle 34 \rangle \langle 12 \rangle | 24 \rangle \langle s_{13} - s_{56} \rangle \langle 46 \rangle}{\langle 24 \rangle \Delta_{13|24|56} \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{\langle 46 \rangle \langle s_{13} - s_{24} \rangle \langle 36 \rangle \langle -1/2 | 23 \rangle | 24 \rangle \langle 23 \rangle \dots \langle 3 \text{ terms} \rangle \dots - 5/6 | 14 \rangle | 24 \rangle \langle 14 \rangle}{\langle 56 \rangle \Delta_{13|24|56} \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{-1/2 | 45 \rangle \langle s_{13} - s_{24} \rangle \langle 4 | 1 + 3 | 2 \rangle | 15 \rangle \langle 13 \rangle}{[56] \Delta_{13|24|56} \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{| 15 \rangle \langle s_{13} - s_{24} \rangle \langle -1/3 | 25 \rangle | 24 \rangle \langle 34 \rangle \langle 12 \rangle + 1/4 | 25 \rangle | 12 \rangle \langle 13 \rangle \langle 12 \rangle - 7/12 | 45 \rangle | 24 \rangle \langle 34 \rangle \langle 14 \rangle + 7/12 | 12 \rangle \langle 13 \rangle^2 | 35 \rangle}{[56] \Delta_{13|24|56} \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{-43/24 | 25 \rangle | 14 \rangle^2 \langle 36 \rangle \langle 14 \rangle^2 \dots \langle 54 \text{ terms} \rangle \dots - 1/6 \langle 23 \rangle \langle 26 \rangle | 23 \rangle | 25 \rangle | 12 \rangle \langle 13 \rangle}{\Delta_{13|24|56} \langle 1 | 2 + 4 | 3 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{-9/2 \langle 16 \rangle | 23 \rangle | 24 \rangle^2 \langle 26 \rangle}{[34]^2 \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle \langle 1 | 2 + 3 | 4 \rangle} + \\
& \frac{\langle 16 \rangle \langle -77/6 | 24 \rangle | 13 \rangle \langle 46 \rangle \dots \langle 3 \text{ terms} \rangle \dots + 47/4 \langle 16 \rangle | 12 \rangle | 13 \rangle}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle} + \\
& \frac{17/4 \langle 46 \rangle | 23 \rangle | 24 \rangle \langle 26 \rangle}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle} + \\
& \frac{| 23 \rangle | 15 \rangle \langle -139/12 | 13 \rangle | 35 \rangle + 7/4 | 45 \rangle \langle 14 \rangle}{\langle 24 \rangle [34]^2 [56] \langle 1 | 2 + 4 | 3 \rangle} + \\
& \frac{| 25 \rangle \langle 37/3 | 24 \rangle | 35 \rangle + 47/4 | 45 \rangle | 23 \rangle}{[34]^2 [56] \langle 1 | 2 + 4 | 3 \rangle} + \\
& \frac{-17/4 \langle 23 \rangle | 23 \rangle \langle 46 \rangle \langle 16 \rangle | 24 \rangle}{\langle 24 \rangle [34] \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle \langle 1 | 2 + 3 | 4 \rangle} + \\
& \frac{| 24 \rangle \langle 16 \rangle \langle 15/4 | 23 \rangle \langle 36 \rangle + 4 | 24 \rangle \langle 46 \rangle}{[34] \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle \langle 1 | 2 + 3 | 4 \rangle} + \\
& \frac{-7/2 | 23 \rangle \langle 46 \rangle \langle 36 \rangle}{\langle 24 \rangle [34] \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle} + \\
& \frac{-121/12 | 24 \rangle \langle 46 \rangle^2}{\langle 24 \rangle [34] \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle} + \\
& \frac{\langle 34 \rangle \langle 16 \rangle \langle -29/4 | 24 \rangle \langle 46 \rangle - 3 | 23 \rangle \langle 36 \rangle}{\langle 24 \rangle \langle 56 \rangle \langle 1 | 2 + 4 | 3 \rangle \langle 1 | 2 + 3 | 4 \rangle} + \\
& \frac{-5/3 \langle 23 \rangle | 14 \rangle \langle 2 | 1 + 6 | 5 \rangle | 45 \rangle | 24 \rangle | 13 \rangle}{[34]^2 [56] \langle 2 | 3 + 4 | 1 \rangle \langle 2 | 1 + 3 | 4 \rangle^2} + \\
& \frac{\langle 23 \rangle | 45 \rangle | 14 \rangle | 13 \rangle \langle 5/3 | 25 \rangle \langle 23 \rangle - 5/3 | 45 \rangle \langle 34 \rangle + 10/3 | 15 \rangle \langle 13 \rangle}{[34] [56] \langle 2 | 3 + 4 | 1 \rangle \langle 2 | 1 + 3 | 4 \rangle^2} + \\
& \frac{| 45 \rangle | 14 \rangle \langle 20/3 | 24 \rangle | 35 \rangle \langle 23 \rangle + 5 | 45 \rangle | 12 \rangle \langle 12 \rangle}{[34]^2 [56] \langle 2 | 1 + 3 | 4 \rangle^2} + \\
& \frac{| 45 \rangle | 14 \rangle \langle -20/3 | 25 \rangle \langle 24 \rangle \langle 23 \rangle - 2 | 34 \rangle | 35 \rangle \langle 23 \rangle + 4/3 | 15 \rangle \langle 13 \rangle \langle 24 \rangle + 2 | 15 \rangle \langle 34 \rangle \langle 12 \rangle}{\langle 24 \rangle [34] [56] \langle 2 | 1 + 3 | 4 \rangle^2} + \\
& \frac{| 14 \rangle \langle 16 \rangle \langle 27/4 | 14 \rangle \langle 46 \rangle + 47/4 | 12 \rangle \langle 26 \rangle}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{\langle 26 \rangle \langle -55/4 | 24 \rangle | 13 \rangle \langle 36 \rangle - 43/6 | 14 \rangle | 24 \rangle \langle 46 \rangle - 17/6 | 12 \rangle \langle 26 \rangle | 24 \rangle + 55/4 \langle 36 \rangle | 12 \rangle | 34 \rangle}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{| 45 \rangle | 15 \rangle \langle 4/3 | 24 \rangle \langle 24 \rangle - 7/3 | 14 \rangle \langle 14 \rangle - 19/3 \langle 34 \rangle | 34 \rangle}{\langle 24 \rangle [34]^2 [56] \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{-55/4 | 25 \rangle | 45 \rangle \langle 23 \rangle | 13 \rangle}{\langle 24 \rangle [34]^2 [56] \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{2 \langle 3 | 1 + 2 | 4 \rangle | 14 \rangle \langle 34 \rangle \langle 26 \rangle \langle 46 \rangle}{\langle 23 \rangle \langle 24 \rangle [34] \langle 56 \rangle \langle 2 | 1 + 3 | 4 \rangle \langle 4 | 5 + 6 | 4 \rangle} + \\
& \frac{-10/3 | 14 \rangle \langle 46 \rangle \langle 36 \rangle}{\langle 24 \rangle [34] \langle 56 \rangle \langle 2 | 1 + 3 | 4 \rangle} + \\
& \frac{1/4 | 14 \rangle | 24 \rangle \langle 34 \rangle^2 \langle 46 \rangle^2}{\langle 24 \rangle \langle 56 \rangle \langle 4 | 2 + 3 | 4 \rangle^2 \langle 4 | 5 + 6 | 4 \rangle} + \\
& \frac{5/4 \langle 46 \rangle | 24 \rangle^3 \langle 26 \rangle}{[34]^2 \langle 56 \rangle \langle 1 | 2 + 3 | 4 \rangle \langle 4 | 2 + 3 | 4 \rangle} + \\
& \frac{-3/2 \langle 3 | 1 + 2 | 4 \rangle | 24 \rangle^2 \langle 46 \rangle^2}{[34] \langle 56 \rangle \langle 1 | 2 + 3 | 4 \rangle \langle 4 | 2 + 3 | 4 \rangle \langle 4 | 5 + 6 | 4 \rangle} + \\
& \frac{-1/4 \langle 46 \rangle | 24 \rangle^2 \langle 36 \rangle}{[34] \langle 56 \rangle \langle 1 | 2 + 3 | 4 \rangle \langle 4 | 2 + 3 | 4 \rangle} + \\
& \frac{| 15 \rangle^2 \langle -1/3 | 14 \rangle \langle 34 \rangle - 10/3 | 12 \rangle \langle 23 \rangle}{[34] [56] \langle 2 | 3 + 4 | 1 \rangle^2} + \\
& \frac{| 12 \rangle \langle 26 \rangle \langle 5/3 | 12 \rangle \langle 26 \rangle + 4/3 | 13 \rangle \langle 36 \rangle + 5/3 | 14 \rangle \langle 46 \rangle}{\langle 24 \rangle [34]^2 \langle 56 \rangle \langle 2 | 3 + 4 | 1 \rangle} + \\
& \frac{| 15 \rangle \langle 5/3 | 45 \rangle \langle 34 \rangle | 13 \rangle \dots \langle 3 \text{ terms} \rangle \dots + 3 | 25 \rangle | 14 \rangle \langle 24 \rangle}{\langle 24 \rangle [34]^2 [56] \langle 2 | 3 + 4 | 1 \rangle} + \\
& \frac{3 \langle 34 \rangle | 24 \rangle \langle 46 \rangle \langle 2 | 1 + 3 | 4 \rangle \langle 36 \rangle}{\langle 23 \rangle \langle 24 \rangle [34] \langle 56 \rangle \langle 1 | 2 + 3 | 4 \rangle \langle 4 | 5 + 6 | 4 \rangle} + \\
& \frac{-7/2 | 45 \rangle | 24 \rangle \langle 34 \rangle \langle 46 \rangle}{\langle 24 \rangle [34] \langle 1 | 2 + 3 | 4 \rangle \langle 4 | 5 + 6 | 4 \rangle} + \\
& \frac{1 | 14 \rangle \langle 46 \rangle \langle 34 \rangle \langle 36 \rangle}{\langle 23 \rangle \langle 24 \rangle [34] \langle 56 \rangle \langle 4 | 5 + 6 | 4 \rangle} + \\
& \frac{3 | 45 \rangle^2 \langle 34 \rangle^3}{\langle 23 \rangle \langle 24 \rangle [56] \langle 1 | 2 + 3 | 4 \rangle \langle 4 | 5 + 6 | 4 \rangle} + \\
& \frac{-3 \langle 34 \rangle \langle 36 \rangle^2}{\langle 23 \rangle \langle 24 \rangle \langle 56 \rangle \langle 1 | 2 + 3 | 4 \rangle}
\end{aligned}$$