

$$\frac{1}{2} \times \frac{1}{3} \times \frac{1}{4} - \frac{1}{3} \times \frac{1}{4} \times \frac{1}{5} + \frac{1}{4} \times \frac{1}{5} \times \frac{1}{6} - \frac{1}{5} \times \frac{1}{6} \times \frac{1}{7}$$

①

②

$$\textcircled{1} \quad \cdot \cdot \frac{5-2}{2 \times 3 \times 4 \times 5} = \frac{3}{2 \times 3 \times 4 \times 5} = \frac{1}{2 \times 4 \times 5}$$

$$\textcircled{2} \quad \cdot \cdot \frac{7-4}{4 \times 5 \times 6 \times 7} = \frac{3}{4 \times 5 \times 6 \times 7} = \frac{1}{4 \times 5 \times 2 \times 7}$$

① + ②

$$\begin{aligned} \frac{1}{2 \times 4 \times 5} + \frac{1}{4 \times 5 \times 2 \times 7} &= \frac{7+1}{2 \times 4 \times 5 \times 7} \\ &= \frac{8}{2 \times 4 \times 5 \times 7} \\ &= \frac{1}{5 \times 7} \\ &= \frac{1}{35} \end{aligned}$$

$$\boxed{\frac{1}{35}}$$