

分数の四則混合 III - 1 (計算の手順の例)

数値変更した類題もこの手順でとけると思いますので参考にしてください。

(1)

$$\begin{aligned}
 & \left(\frac{2}{3} - 2\frac{1}{3} \times 0.1 - 0.02 \right) \div 1\frac{6}{25} \\
 &= \left(\frac{2}{3} - \frac{7}{3} \times \frac{1}{10} - 0.02 \right) \times \frac{25}{31} \\
 &= \left(\frac{2}{3} - \frac{7}{30} - 0.02 \right) \times \frac{25}{31} \\
 &= \left(\frac{200}{300} - \frac{70}{300} - \frac{6}{300} \right) \times \frac{25}{31} \\
 &= \frac{124}{300} \times \frac{25}{31} \\
 &= \frac{\cancel{124}^{31}}{\cancel{300}^{75}} \times \frac{25}{31} \\
 &= \frac{\cancel{4}^1}{\cancel{75}^3} \times \frac{\cancel{25}^1}{\cancel{31}^1} = \frac{1}{3}
 \end{aligned}$$

(2)

$$\begin{aligned}
 & \frac{2}{3} \times \left\{ \frac{3}{4} - \left(0.75 - \frac{1}{2} \right) \right\} \div \frac{3}{8} \\
 &= \frac{2}{3} \times \left\{ \frac{3}{4} - \left(\frac{3}{4} - \frac{2}{4} \right) \right\} \times \frac{8}{3} \\
 &= \frac{2}{3} \times \left\{ \frac{3}{4} - \frac{1}{4} \right\} \times \frac{8}{3} \\
 &= \frac{2}{3} \times \frac{1}{2} \times \frac{8}{3} \\
 &= \frac{\cancel{2}^1}{\cancel{3}^1} \times \frac{1}{\cancel{2}_1} \times \frac{8}{3} = \frac{8}{9}
 \end{aligned}$$

(3)

$$\begin{aligned}
 & \left(\frac{1}{2} \div 0.25 - 1\frac{7}{9} \right) \div \frac{2}{3} \\
 &= \left(\frac{1}{2} \div \frac{1}{4} - 1\frac{7}{9} \right) \times \frac{3}{2} \\
 &= \left(\frac{1}{2} \times 4 - 1\frac{7}{9} \right) \times \frac{3}{2} \\
 &= \left(\frac{1}{\cancel{2}_1} \times \cancel{4}^2 - 1\frac{7}{9} \right) \times \frac{3}{2} \\
 &= \frac{2}{9} \times \frac{3}{2} \\
 &= \frac{\cancel{2}^1}{\cancel{9}^3} \times \frac{\cancel{3}^1}{\cancel{2}_1} = \frac{1}{3}
 \end{aligned}$$

(4)

$$\begin{aligned}
 & \left\{ 1\frac{1}{2} + \frac{3}{5} \div \left(2 - \frac{7}{10} \right) \right\} \times 4\frac{10}{17} \\
 &= \left\{ 1\frac{1}{2} + \frac{3}{5} \div 1\frac{3}{10} \right\} \times \frac{78}{17} \\
 &= \left\{ 1\frac{1}{2} + \frac{3}{5} \times \frac{10}{13} \right\} \times \frac{78}{17} \\
 &= \left\{ 1\frac{1}{2} + \frac{3}{\cancel{5}_1} \times \frac{\cancel{10}^2}{13} \right\} \times \frac{78}{17} \\
 &= \left\{ 1\frac{13}{26} + \frac{12}{26} \right\} \times \frac{78}{17} \\
 &= 1\frac{25}{26} \times \frac{78}{17} \\
 &= \frac{51}{26} \times \frac{78}{17} \\
 &= \frac{\cancel{51}^3}{\cancel{26}^2} \times \frac{78}{\cancel{17}_1} \\
 &= \frac{3}{\cancel{26}_1} \times \frac{\cancel{78}^3}{\cancel{1}^1} = 9
 \end{aligned}$$

(5)

$$\begin{aligned} & \left(2\frac{1}{3} - 1\frac{3}{4}\right) \div \frac{7}{15} - 1\frac{1}{4} \\ &= \left(2\frac{4}{12} - 1\frac{9}{12}\right) \times \frac{15}{7} - 1\frac{1}{4} \\ &= \frac{7}{12} \times \frac{15}{7} - 1\frac{1}{4} \\ &= \frac{\cancel{7}^1}{\cancel{12}_4} \times \frac{\cancel{15}^5}{\cancel{7}_1} - 1\frac{1}{4} \\ &= \frac{5}{4} - 1\frac{1}{4} = 0 \end{aligned}$$

(6)

$$\begin{aligned} & 1\frac{2}{5} \div \left(\frac{3}{5} - \frac{1}{4}\right) \times 0.25 \\ &= \frac{7}{5} \div \left(\frac{12}{20} - \frac{5}{20}\right) \times \frac{1}{4} \\ &= \frac{7}{5} \div \frac{7}{20} \times \frac{1}{4} \\ &= \frac{7}{\cancel{5}_1} \times \frac{\cancel{20}^1}{7} \times \frac{1}{\cancel{4}_1} \\ &= \frac{\cancel{7}^1}{1} \times \frac{1}{\cancel{7}_1} \times \frac{1}{1} = 1 \end{aligned}$$