

分数の一次式の加法・減法

次の計算をしましょう。

$$\textcircled{1} \quad \left(\frac{1}{4}x - \frac{2}{9} \right) + \left(\frac{1}{3}x + \frac{1}{3} \right)$$

$$\textcircled{4} \quad \left(\frac{3}{4}x - \frac{1}{4} \right) - \left(\frac{1}{7}x + \frac{4}{7} \right)$$

$$\textcircled{2} \quad \left(\frac{2}{7}x - \frac{1}{5} \right) + \left(\frac{1}{8}x - \frac{1}{7} \right)$$

$$\textcircled{5} \quad \left(\frac{1}{5}x - \frac{2}{5} \right) + \left(-\frac{3}{8}x + \frac{3}{4} \right)$$

$$\textcircled{3} \quad \left(\frac{5}{6}x + \frac{1}{6} \right) - \left(\frac{4}{5}x + \frac{1}{3} \right)$$

$$\textcircled{6} \quad \left(\frac{1}{5}x - \frac{5}{7} \right) - \left(-\frac{1}{3}x - \frac{2}{9} \right)$$

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$$\begin{aligned}\textcircled{1} \quad & \left(\frac{1}{4}x - \frac{2}{9} \right) + \left(-\frac{1}{3}x + \frac{1}{3} \right) \\ &= \frac{1}{4}x + \frac{1}{3}x - \frac{2}{9} + \frac{1}{3} \\ &= \frac{3}{12}x + \frac{4}{12}x - \frac{2}{9} + \frac{3}{9} \\ &= \frac{7}{12}x + \frac{1}{9}\end{aligned}$$

$$\begin{aligned}\textcircled{4} \quad & \left(\frac{3}{4}x - \frac{1}{4} \right) - \left(\frac{1}{7}x + \frac{4}{7} \right) \\ &= \frac{3}{4}x - \frac{1}{7}x - \frac{1}{4} - \frac{4}{7} \\ &= \frac{21}{28}x - \frac{4}{28}x - \frac{7}{28} - \frac{16}{28} \\ &= \frac{17}{28}x - \frac{23}{28}\end{aligned}$$

$$\begin{aligned}\textcircled{2} \quad & \left(\frac{2}{7}x - \frac{1}{5} \right) + \left(-\frac{1}{8}x - \frac{1}{7} \right) \\ &= \frac{2}{7}x + \frac{1}{8}x - \frac{1}{5} - \frac{1}{7} \\ &= \frac{16}{56}x + \frac{7}{56}x - \frac{7}{35} - \frac{5}{35} \\ &= \frac{23}{56}x - \frac{12}{35}\end{aligned}$$

$$\begin{aligned}\textcircled{5} \quad & \left(-\frac{1}{5}x - \frac{2}{5} \right) + \left(-\frac{3}{8}x + \frac{3}{4} \right) \\ &= -\frac{1}{5}x - \frac{3}{8}x - \frac{2}{5} + \frac{3}{4} \\ &= -\frac{8}{40}x - \frac{15}{40}x - \frac{8}{20} + \frac{15}{20} \\ &= -\frac{7}{40}x + \frac{7}{20}\end{aligned}$$

$$\begin{aligned}\textcircled{3} \quad & \left(\frac{5}{6}x + \frac{1}{6} \right) - \left(\frac{4}{5}x + \frac{1}{3} \right) \\ &= \frac{5}{6}x - \frac{4}{5}x + \frac{1}{6} - \frac{1}{3} \\ &= \frac{25}{30}x - \frac{24}{30}x + \frac{1}{6} - \frac{2}{6} \\ &= \frac{1}{30}x - \frac{1}{6}\end{aligned}$$

$$\begin{aligned}\textcircled{6} \quad & \left(-\frac{1}{5}x - \frac{5}{7} \right) - \left(-\frac{1}{3}x - \frac{2}{9} \right) \\ &= -\frac{1}{5}x + \frac{1}{3}x - \frac{5}{7} + \frac{2}{9} \\ &= -\frac{3}{15}x + \frac{5}{15}x - \frac{45}{63} + \frac{14}{63} \\ &= \frac{8}{15}x - \frac{31}{63}\end{aligned}$$