

分数の一次式の減法

次の計算をしましょう。

$$\textcircled{1} \left(\frac{4}{9}x - \frac{2}{3} \right) - \left(\frac{1}{7}x - \frac{5}{6} \right)$$

$$\textcircled{4} \left(\frac{1}{8}x + \frac{5}{7} \right) - \left(-\frac{1}{4}x - \frac{1}{8} \right)$$

$$\textcircled{2} \left(\frac{4}{5}x - \frac{2}{7} \right) - \left(\frac{3}{4}x - \frac{2}{5} \right)$$

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

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

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

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次の計算をしましょう。

$$\begin{aligned}\textcircled{1} \quad & \left(\frac{4}{9}x - \frac{2}{3}\right) - \left(\frac{1}{7}x - \frac{5}{6}\right) \\ &= \frac{4}{9}x - \frac{1}{7}x - \frac{2}{3} + \frac{5}{6} \\ &= \frac{28}{63}x - \frac{9}{63}x - \frac{4}{6} + \frac{5}{6} \\ &= \frac{19}{63}x + \frac{1}{6}\end{aligned}$$

$$\begin{aligned}\textcircled{4} \quad & \left(\frac{1}{8}x + \frac{5}{7}\right) - \left(-\frac{1}{4}x - \frac{1}{8}\right) \\ &= \frac{1}{8}x + \frac{1}{4}x + \frac{5}{7} + \frac{1}{8} \\ &= \frac{1}{8}x + \frac{2}{8}x + \frac{40}{56} + \frac{7}{56} \\ &= \frac{3}{8}x + \frac{47}{56}\end{aligned}$$

$$\begin{aligned}\textcircled{2} \quad & \left(\frac{4}{5}x - \frac{2}{7}\right) - \left(\frac{3}{4}x - \frac{2}{5}\right) \\ &= \frac{4}{5}x - \frac{3}{4}x - \frac{2}{7} + \frac{2}{5} \\ &= \frac{16}{20}x - \frac{15}{20}x - \frac{10}{35} + \frac{14}{35} \\ &= \frac{1}{20}x + \frac{4}{35}\end{aligned}$$

$$\begin{aligned}\textcircled{5} \quad & \left(\frac{1}{6}x + \frac{1}{3}\right) - \left(-\frac{2}{3}x - \frac{2}{7}\right) \\ &= \frac{1}{6}x + \frac{2}{3}x + \frac{1}{3} + \frac{2}{7} \\ &= \frac{1}{6}x + \frac{4}{6}x + \frac{7}{21} + \frac{6}{21} \\ &= \frac{5}{6}x + \frac{13}{21}\end{aligned}$$

$$\begin{aligned}\textcircled{3} \quad & \left(\frac{1}{3}x - \frac{3}{4}\right) - \left(\frac{1}{4}x - \frac{4}{5}\right) \\ &= \frac{1}{3}x - \frac{1}{4}x - \frac{3}{4} + \frac{4}{5} \\ &= \frac{4}{12}x - \frac{3}{12}x - \frac{15}{20} + \frac{16}{20} \\ &= \frac{1}{12}x + \frac{1}{20}\end{aligned}$$

$$\begin{aligned}\textcircled{6} \quad & \left(\frac{1}{5}x + \frac{5}{6}\right) - \left(-\frac{1}{3}x + \frac{1}{5}\right) \\ &= \frac{1}{5}x + \frac{1}{3}x + \frac{5}{6} - \frac{1}{5} \\ &= \frac{3}{15}x + \frac{5}{15}x + \frac{25}{30} - \frac{6}{30} \\ &= \frac{8}{15}x + \frac{19}{30}\end{aligned}$$