

分数の一次式の加法・減法

次の計算をしましょう。

$$\textcircled{1} \quad \left(\frac{2}{7}x + \frac{3}{8} \right) + \left(\frac{1}{6}x - \frac{3}{4} \right)$$

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

$$\textcircled{2} \quad \left(\frac{4}{7}x - \frac{3}{5} \right) + \left(\frac{1}{8}x + \frac{7}{8} \right)$$

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

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

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

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次の計算をしましょう。

$$\begin{aligned}\textcircled{1} \quad & \left(\frac{2}{7}x + \frac{3}{8} \right) + \left(-\frac{1}{6}x - \frac{3}{4} \right) \\ &= \frac{2}{7}x + \frac{1}{6}x + \frac{3}{8} - \frac{3}{4} \\ &= \frac{12}{42}x + \frac{7}{42}x + \frac{3}{8} - \frac{6}{8} \\ &= \frac{19}{42}x - \frac{3}{8}\end{aligned}$$

$$\begin{aligned}\textcircled{4} \quad & \left(\frac{2}{5}x + \frac{5}{6} \right) - \left(\frac{1}{3}x + \frac{5}{7} \right) \\ &= \frac{2}{5}x - \frac{1}{3}x + \frac{5}{6} - \frac{5}{7} \\ &= \frac{6}{15}x - \frac{5}{15}x + \frac{35}{42} - \frac{30}{42} \\ &= \frac{1}{15}x + \frac{5}{42}\end{aligned}$$

$$\begin{aligned}\textcircled{2} \quad & \left(\frac{4}{7}x - \frac{3}{5} \right) + \left(-\frac{1}{8}x + \frac{7}{8} \right) \\ &= \frac{4}{7}x + \frac{1}{8}x - \frac{3}{5} + \frac{7}{8} \\ &= \frac{32}{56}x + \frac{7}{56}x - \frac{24}{40} + \frac{35}{40} \\ &= \frac{39}{56}x + \frac{11}{40}\end{aligned}$$

$$\begin{aligned}\textcircled{5} \quad & \left(\frac{4}{7}x + \frac{1}{3} \right) + \left(-\frac{3}{4}x - \frac{6}{7} \right) \\ &= \frac{4}{7}x - \frac{3}{4}x + \frac{1}{3} - \frac{6}{7} \\ &= \frac{16}{28}x - \frac{21}{28}x + \frac{7}{21} - \frac{18}{21} \\ &= -\frac{5}{28}x - \frac{11}{21}\end{aligned}$$

$$\begin{aligned}\textcircled{3} \quad & \left(\frac{3}{4}x + \frac{6}{7} \right) - \left(\frac{1}{3}x + \frac{2}{3} \right) \\ &= \frac{3}{4}x - \frac{1}{3}x + \frac{6}{7} - \frac{2}{3} \\ &= \frac{9}{12}x - \frac{4}{12}x + \frac{18}{21} - \frac{14}{21} \\ &= \frac{5}{12}x + \frac{4}{21}\end{aligned}$$

$$\begin{aligned}\textcircled{6} \quad & \left(\frac{1}{5}x + \frac{4}{7} \right) - \left(-\frac{3}{7}x + \frac{4}{5} \right) \\ &= \frac{1}{5}x + \frac{3}{7}x + \frac{4}{7} - \frac{4}{5} \\ &= \frac{7}{35}x + \frac{15}{35}x + \frac{20}{35} - \frac{28}{35} \\ &= \frac{22}{35}x - \frac{8}{35}\end{aligned}$$