

分数の一次式の加法

次の計算をしましょう。

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

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

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

$$\textcircled{5} \quad \left(\frac{3}{8}x + \frac{6}{7} \right) + \left(-\frac{6}{7}x - \frac{1}{6} \right)$$

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

$$\textcircled{6} \quad \left(\frac{2}{5}x + \frac{2}{7} \right) + \left(-\frac{6}{7}x - \frac{5}{8} \right)$$

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次の計算をしましょう。

$$\begin{aligned}\textcircled{1} \quad & \left(\frac{2}{3}x + \frac{1}{3} \right) + \left(\frac{1}{7}x - \frac{2}{7} \right) \\ &= \frac{2}{3}x + \frac{1}{7}x + \frac{1}{3} - \frac{2}{7} \\ &= \frac{14}{21}x + \frac{3}{21}x + \frac{7}{21} - \frac{6}{21} \\ &= \frac{17}{21}x + \frac{1}{21}\end{aligned}$$

$$\begin{aligned}\textcircled{4} \quad & \left(\frac{4}{7}x + \frac{5}{6} \right) + \left(-\frac{5}{6}x - \frac{2}{5} \right) \\ &= \frac{4}{7}x - \frac{5}{6}x + \frac{5}{6} - \frac{2}{5} \\ &= \frac{24}{42}x - \frac{35}{42}x + \frac{25}{30} - \frac{12}{30} \\ &= -\frac{11}{42}x + \frac{13}{30}\end{aligned}$$

$$\begin{aligned}\textcircled{2} \quad & \left(\frac{1}{7}x + \frac{1}{5} \right) + \left(\frac{2}{3}x + \frac{2}{3} \right) \\ &= \frac{1}{7}x + \frac{2}{3}x + \frac{1}{5} + \frac{2}{3} \\ &= \frac{3}{21}x + \frac{14}{21}x + \frac{3}{15} + \frac{10}{15} \\ &= \frac{17}{21}x + \frac{13}{15}\end{aligned}$$

$$\begin{aligned}\textcircled{5} \quad & \left(\frac{3}{8}x + \frac{6}{7} \right) + \left(-\frac{6}{7}x - \frac{1}{6} \right) \\ &= \frac{3}{8}x - \frac{6}{7}x + \frac{6}{7} - \frac{1}{6} \\ &= \frac{21}{56}x - \frac{48}{56}x + \frac{36}{42} - \frac{7}{42} \\ &= -\frac{27}{56}x + \frac{29}{42}\end{aligned}$$

$$\begin{aligned}\textcircled{3} \quad & \left(\frac{1}{3}x - \frac{2}{3} \right) + \left(\frac{1}{8}x + \frac{1}{4} \right) \\ &= \frac{1}{3}x + \frac{1}{8}x - \frac{2}{3} + \frac{1}{4} \\ &= \frac{8}{24}x + \frac{3}{24}x - \frac{8}{12} + \frac{3}{12} \\ &= \frac{11}{24}x - \frac{5}{12}\end{aligned}$$

$$\begin{aligned}\textcircled{6} \quad & \left(\frac{2}{5}x + \frac{2}{7} \right) + \left(-\frac{6}{7}x - \frac{5}{8} \right) \\ &= \frac{2}{5}x - \frac{6}{7}x + \frac{2}{7} - \frac{5}{8} \\ &= \frac{14}{35}x - \frac{30}{35}x + \frac{16}{56} - \frac{35}{56} \\ &= -\frac{16}{35}x - \frac{19}{56}\end{aligned}$$