

1次方程式

年 組 名前

/14

■ 次の方程式を解きなさい。

① $-\frac{9}{14}x - \frac{1}{2} = \frac{4}{7} - \frac{1}{2}x$

② $2x + 2 = \frac{1}{2} + \frac{3}{4}x$

③ $-\frac{2}{3}x + \frac{1}{2} = -\frac{7}{18} + \frac{1}{3}x$

④ $\frac{1}{4}y + \frac{5}{8} = -\frac{3}{4} + 2y$

⑤ $\frac{1}{8}x - \frac{5}{16} = \frac{1}{8} + \frac{5}{8}x$

⑥ $\frac{1}{3}b - \frac{2}{3} = -\frac{1}{5} - \frac{1}{3}b$

⑦ $\frac{1}{3}x + \frac{1}{3} = -\frac{4}{9} - \frac{7}{9}x$

⑧ $\frac{1}{4}x - \frac{1}{2} = \frac{7}{12} - \frac{1}{6}x$

⑨ $-\frac{3}{4}x - \frac{7}{8} = \frac{1}{2} + \frac{3}{8}x$

⑩ $-\frac{3}{4} - \frac{1}{8}x = -\frac{7}{8} + \frac{3}{8}x$

⑪ $\frac{1}{2} - \frac{1}{2}x = \frac{7}{10} + \frac{1}{10}x$

⑫ $\frac{5}{12}x + \frac{1}{3} = \frac{5}{12} - \frac{5}{6}x$

⑬ $-\frac{7}{8}t + 2 = -2 - \frac{1}{2}t$

⑭ $-\frac{5}{9}x + \frac{1}{2} = -\frac{1}{2} - \frac{1}{2}x$

■ 次の方程式を解きなさい。

$$\textcircled{1} \quad -\frac{9}{14}x - \frac{1}{2} = \frac{4}{7} - \frac{1}{2}x$$

両辺に 14 をかけて

$$\begin{aligned} -9x - 7 &= 8 - 7x \\ -2x &= 15 \end{aligned}$$

$$x = -\frac{15}{2}$$

$$\textcircled{2} \quad 2x + 2 = \frac{1}{2} + \frac{3}{4}x$$

両辺に 4 をかけて

$$\begin{aligned} 8x + 8 &= 2 + 3x \\ 5x &= -6 \end{aligned}$$

$$x = -\frac{6}{5}$$

$$\textcircled{3} \quad -\frac{2}{3}x + \frac{1}{2} = -\frac{7}{18} + \frac{1}{3}x$$

両辺に 18 をかけて

$$\begin{aligned} -12x + 9 &= -7 + 6x \\ -18x &= -16 \end{aligned}$$

$$x = \frac{8}{9}$$

$$\textcircled{4} \quad \frac{1}{4}y + \frac{5}{8} = -\frac{3}{4} + 2y$$

両辺に 8 をかけて

$$\begin{aligned} 2y + 5 &= -6 + 16y \\ -14y &= -11 \end{aligned}$$

$$y = \frac{11}{14}$$

$$\textcircled{5} \quad \frac{1}{8}x - \frac{5}{16} = \frac{1}{8} + \frac{5}{8}x$$

両辺に 16 をかけて

$$\begin{aligned} 2x - 5 &= 2 + 10x \\ -8x &= 7 \end{aligned}$$

$$x = -\frac{7}{8}$$

$$\textcircled{6} \quad \frac{1}{3}b - \frac{2}{3} = -\frac{1}{5} - \frac{1}{3}b$$

両辺に 15 をかけて

$$\begin{aligned} 5b - 10 &= -3 - 5b \\ 10b &= 7 \end{aligned}$$

$$b = \frac{7}{10}$$

$$\textcircled{7} \quad \frac{1}{3}x + \frac{1}{3} = -\frac{4}{9} - \frac{7}{9}x$$

両辺に 9 をかけて

$$\begin{aligned} 3x + 3 &= -4 - 7x \\ 10x &= -7 \end{aligned}$$

$$x = -\frac{7}{10}$$

$$\textcircled{8} \quad \frac{1}{4}x - \frac{1}{2} = \frac{7}{12} - \frac{1}{6}x$$

両辺に 12 をかけて

$$\begin{aligned} 3x - 6 &= 7 - 2x \\ 5x &= 13 \end{aligned}$$

$$x = \frac{13}{5}$$

$$\textcircled{9} \quad -\frac{3}{4}x - \frac{7}{8} = \frac{1}{2} + \frac{3}{8}x$$

両辺に 8 をかけて

$$\begin{aligned} -6x - 7 &= 4 + 3x \\ -9x &= 11 \end{aligned}$$

$$x = -\frac{11}{9}$$

$$\textcircled{10} \quad -\frac{3}{4} - \frac{1}{8}x = -\frac{7}{8} + \frac{3}{8}x$$

両辺に 8 をかけて

$$\begin{aligned} -6 - x &= -7 + 3x \\ -4x &= -1 \end{aligned}$$

$$x = \frac{1}{4}$$

$$\textcircled{11} \quad \frac{1}{2} - \frac{1}{2}x = \frac{7}{10} + \frac{1}{10}x$$

両辺に 10 をかけて

$$\begin{aligned} 5 - 5x &= 7 + x \\ -6x &= 2 \end{aligned}$$

$$x = -\frac{1}{3}$$

$$\textcircled{12} \quad \frac{5}{12}x + \frac{1}{3} = \frac{5}{12} - \frac{5}{6}x$$

両辺に 12 をかけて

$$\begin{aligned} 5x + 4 &= 5 - 10x \\ 15x &= 1 \end{aligned}$$

$$x = \frac{1}{15}$$

$$\textcircled{13} \quad -\frac{7}{8}t + 2 = -2 - \frac{1}{2}t$$

両辺に 8 をかけて

$$\begin{aligned} -7t + 16 &= -16 - 4t \\ -3t &= -32 \end{aligned}$$

$$t = \frac{32}{3}$$

$$\textcircled{14} \quad -\frac{5}{9}x + \frac{1}{2} = -\frac{1}{2} - \frac{1}{2}x$$

両辺に 18 をかけて

$$\begin{aligned} -10x + 9 &= -9 - 9x \\ -x &= -18 \end{aligned}$$

$$x = 18$$