

# 1次方程式

年 組 名前

/14

■ 次の方程式を解きなさい。

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

②  $2x - \frac{1}{2} = 2 - \frac{1}{4}x$

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

④  $-\frac{6}{7}x - \frac{4}{7} = \frac{1}{2} + \frac{1}{14}x$

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

⑥  $-\frac{3}{4}x - \frac{5}{6} = \frac{1}{12} - \frac{1}{4}x$

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

⑧  $\frac{2}{9}b + \frac{1}{9} = -2 + 2b$

⑨  $\frac{5}{6}x + \frac{5}{6} = \frac{4}{9} + \frac{2}{3}x$

⑩  $-\frac{1}{6} + \frac{5}{6}x = -\frac{5}{6} - 2x$

⑪  $\frac{1}{2} + \frac{1}{2}y = -\frac{1}{3} - \frac{3}{4}y$

⑫  $-\frac{5}{7}s + 2 = -2 + 2s$

⑬  $-\frac{1}{4}n + \frac{1}{4} = -\frac{1}{16} + \frac{1}{4}n$

⑭  $-\frac{7}{9}s - \frac{1}{2} = -\frac{1}{9} + \frac{1}{2}s$

■ 次の方程式を解きなさい。

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

両辺に 6 をかけて

$$\begin{aligned} -4x + 12 &= -3 + 5x \\ -9x &= -15 \end{aligned}$$

$$x = \frac{5}{3}$$

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

両辺に 4 をかけて

$$\begin{aligned} 8x - 2 &= 8 - x \\ 9x &= 10 \end{aligned}$$

$$x = \frac{10}{9}$$

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

両辺に 12 をかけて

$$\begin{aligned} 3x - 9 &= -4 + 8x \\ -5x &= 5 \end{aligned}$$

$$x = -1$$

$$\textcircled{4} \quad -\frac{6}{7}x - \frac{4}{7} = \frac{1}{2} + \frac{1}{14}x$$

両辺に 14 をかけて

$$\begin{aligned} -12x - 8 &= 7 + x \\ -13x &= 15 \end{aligned}$$

$$x = -\frac{15}{13}$$

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

両辺に 8 をかけて

$$\begin{aligned} -5x + 16 &= 2 - 2x \\ -3x &= -14 \end{aligned}$$

$$x = \frac{14}{3}$$

$$\textcircled{6} \quad -\frac{3}{4}x - \frac{5}{6} = \frac{1}{12} - \frac{1}{4}x$$

両辺に 12 をかけて

$$\begin{aligned} -9x - 10 &= 1 - 3x \\ -6x &= 11 \end{aligned}$$

$$x = -\frac{11}{6}$$

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

両辺に 12 をかけて

$$\begin{aligned} 2x - 7 &= 3 + 6x \\ -4x &= 10 \end{aligned}$$

$$x = -\frac{5}{2}$$

$$\textcircled{8} \quad \frac{2}{9}b + \frac{1}{9} = -2 + 2b$$

両辺に 9 をかけて

$$\begin{aligned} 2b + 1 &= -18 + 18b \\ -16b &= -19 \end{aligned}$$

$$b = \frac{19}{16}$$

$$\textcircled{9} \quad \frac{5}{6}x + \frac{5}{6} = \frac{4}{9} + \frac{2}{3}x$$

両辺に 18 をかけて

$$\begin{aligned} 15x + 15 &= 8 + 12x \\ 3x &= -7 \end{aligned}$$

$$x = -\frac{7}{3}$$

$$\textcircled{10} \quad -\frac{1}{6} + \frac{5}{6}x = -\frac{5}{6} - 2x$$

両辺に 6 をかけて

$$\begin{aligned} -1 + 5x &= -5 - 12x \\ 17x &= -4 \end{aligned}$$

$$x = -\frac{4}{17}$$

$$\textcircled{11} \quad \frac{1}{2} + \frac{1}{2}y = -\frac{1}{3} - \frac{3}{4}y$$

両辺に 12 をかけて

$$\begin{aligned} 6 + 6y &= -4 - 9y \\ 15y &= -10 \end{aligned}$$

$$y = -\frac{2}{3}$$

$$\textcircled{12} \quad -\frac{5}{7}s + 2 = -2 + 2s$$

両辺に 7 をかけて

$$\begin{aligned} -5s + 14 &= -14 + 14s \\ -19s &= -28 \end{aligned}$$

$$s = \frac{28}{19}$$

$$\textcircled{13} \quad -\frac{1}{4}n + \frac{1}{4} = -\frac{1}{16} + \frac{1}{4}n$$

両辺に 16 をかけて

$$\begin{aligned} -4n + 4 &= -1 + 4n \\ -8n &= -5 \end{aligned}$$

$$n = \frac{5}{8}$$

$$\textcircled{14} \quad -\frac{7}{9}s - \frac{1}{2} = -\frac{1}{9} + \frac{1}{2}s$$

両辺に 18 をかけて

$$\begin{aligned} -14s - 9 &= -2 + 9s \\ -23s &= 7 \end{aligned}$$

$$s = -\frac{7}{23}$$