

一次方程式

1 次の方程式や比例式を解きなさい。

① $2x = 12$

② $x + 3 = 4$

③ $x - 9 = 4x$

④ $6x + 5 = 3x + 8$

⑤ $3(2x - 2) = 5x - 1$

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

⑦ $x + 0.2 = 0.4x + 8$

⑧ $0.7x + 0.1 = 0.2x - 0.6$

⑨ $\frac{1}{2}x = 4 + x$

⑩ $\frac{x-3}{6} = \frac{2x+8}{4}$

⑪ $6 : x = 3 : 4$

⑫ $3 : 8 = 12 : (x + 4)$

一次方程式

※ 解の形

左辺 (文字) = 右辺 (数)

※ 計算は、タテにイコールを
そろえる!

1 次の方程式や比例式を解きなさい。

$$\textcircled{1} \frac{2x}{21} = \frac{1-26}{21} \quad \text{両辺に} 21 \text{ をかける}$$

$$x = 6$$

$$\textcircled{2} x + 3 = 4 \quad \text{移項}$$

$$x = 4 - 3$$

$$x = 1$$

$$\textcircled{3} x - 9 = 4x \quad \text{移項}$$

$$x - 4x = 9$$

$$-3x = 9$$

$$x = -3$$

$$\textcircled{4} 6x + 5 = 3x + 8$$

$$6x - 3x = 8 - 5$$

$$3x = 3$$

$$x = 1$$

分配法則

$$\textcircled{5} \textcircled{3} (2x - 2) = 5x - 1$$

$$6x - 6 = 5x - 1$$

$$6x - 5x = -1 + 6$$

$$x = 5$$

$$\textcircled{6} \textcircled{2} (x + 3) = \textcircled{4} (2x - \frac{1}{2})$$

$$2x + 6 = 8x - 2$$

$$2x - 8x = -2 - 6$$

$$-6x = -8$$

$$x = \frac{4}{3} \quad \text{符号に注意}$$

$\times 10$ $\times 10$ $\times 10$ $\times 10$

$$\textcircled{7} x + 0.2 = 0.4x + 8 \quad \text{整数に} \quad \text{なおす}$$

$$10x + 2 = 4x + 80$$

$$10x - 4x = 80 - 2$$

$$6x = 78$$

$$x = 13$$

$\times 10$ $\times 10$ $\times 10$ $\times 10$

$$\textcircled{8} 0.7x + 0.1 = 0.2x - 0.6$$

$$7x + 1 = 2x - 6$$

$$7x - 2x = -6 - 1$$

$$5x = -7$$

$$x = -\frac{7}{5}$$

$$\textcircled{9} \frac{1}{2}x = 4 + x^2 \quad \text{両辺に} 2 \text{ をかける}$$

$$x = 8 + 2x$$

$$x - 2x = 8$$

$$-x = 8$$

$$x = -8$$

$$\textcircled{10} \frac{x-3}{6} = \frac{2x+8}{4} \quad \text{最小公倍数を} 12 \text{ がけ、分母をそろえる}$$

$$\textcircled{2}(x-3) = \textcircled{3}(2x+8)$$

$$2x - 6 = 6x + 24$$

$$2x - 6x = 24 + 6$$

$$-4x = 30$$

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

外項の積

$$\textcircled{11} 6 : x = 3 : 4$$

内項の積

$$3x = 24$$

$$x = 8$$

$$\textcircled{12} 3 : 8 = 12 : (x+4)$$

$$\textcircled{3}(x+4) = 96$$

$$3x + 12 = 96$$

$$3x = 96 - 12$$

$$3x = 84$$

$$x = 28$$