

1

次の計算をなさい。

$$\begin{aligned} (1) \quad & (+2) - (+7) + (-5) \\ & = 2 - 7 - 5 \\ & = 2 - 12 \\ & = -10 \end{aligned}$$

- 1 0

$$\begin{aligned} (2) \quad & 12 - 17 - 3 + 9 \\ & = 12 + 9 - 17 - 3 \\ & = 21 - 20 \\ & = 1 \end{aligned}$$

1

$$\begin{aligned} (3) \quad & 2 \times (5 - 8) \\ & = 2 \times (-3) \\ & = -6 \end{aligned}$$

- 6

$$\begin{aligned} (4) \quad & 3 - 2 \times (-4) \\ & = 3 + 8 \\ & = 11 \end{aligned}$$

1 1

$$\begin{aligned} (5) \quad & -5^2 \\ & = -(5 \times 5) \\ & = -25 \end{aligned}$$

指数を含む計算では、下線部の  
ように式に表すなどして、計算方  
法を確認することが大切です。

- 2 5

$$\begin{aligned} (6) \quad & 2 \times (-3)^2 \\ & = 2 \times \underline{(-3) \times (-3)} \\ & = 2 \times 9 \\ & = 18 \end{aligned}$$

1 8

2

次の計算をなさい。

$$\begin{aligned} (1) \quad & (5x - 3) + (-2x + 1) \\ & = 5x - 3 - 2x + 1 \\ & = 5x - 2x - 3 + 1 \\ & = 3x - 2 \end{aligned}$$

3 x - 2

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

3 x - 2

$$\begin{aligned} (3) \quad & (-12x - 8) \div 4 \\ & = -12x \div 4 - 8 \div 4 \\ & = -3x - 2 \end{aligned}$$

- 3 x - 2

$$\begin{aligned} (4) \quad & (3x - 6) \times \frac{1}{6} \\ & = \overset{1}{\cancel{3}}x \times \frac{1}{\cancel{6}_2} - \overset{1}{\cancel{6}} \times \frac{1}{\cancel{6}_1} \\ & = \frac{1}{2}x - 1 \end{aligned}$$

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

※次のページにも、問題があります。

3  $x = -5$ 、 $y = 6$  のとき、次の式の値を求めなさい。

$$\begin{aligned} (1) \quad & 5x - 6y \\ & = 5 \times (-5) - 6 \times 6 \\ & = -25 - 36 \\ & = -61 \end{aligned}$$

$$\boxed{-61}$$

$$\begin{aligned} (2) \quad & 2x^2 - 5y^2 \\ & = 2 \times x \times x - 5 \times y \times y \\ & = 2 \times (-5) \times (-5) - 5 \times 6 \times 6 \\ & = 50 - 180 \\ & = -130 \end{aligned}$$

$$\boxed{-130}$$

4 次の方程式を解きなさい。

$$\begin{aligned} (1) \quad & 4x - 3 = 5 \\ & 4x = 5 + 3 \\ & 4x = 8 \\ & x = 2 \end{aligned}$$

$$\boxed{x = 2}$$

$$\begin{aligned} (2) \quad & 3x + 7 = 9 \\ & 3x = 9 - 7 \\ & 3x = 2 \\ & x = \frac{2}{3} \end{aligned}$$

$$\boxed{x = \frac{2}{3}}$$

$$\begin{aligned} (3) \quad & 4(x + 5) = 80 \\ & 4x + 20 = 80 \\ & 4x = 80 - 20 \\ & 4x = 60 \\ & x = 15 \end{aligned}$$

$$\boxed{x = 15}$$

$$\begin{aligned} (4) \quad & 6x - 4(x - 7) = 18 \\ & 6x - 4x + 28 = 18 \\ & 6x - 4x = -10 \\ & 2x = -10 \\ & x = -5 \end{aligned}$$

$$\boxed{x = -5}$$

係数に分数をふくむ方程式では、分母の最小公倍数を両辺にかけるなどして、係数を整数にしてから解きます。

$$\begin{aligned} (5) \quad & 0.1x + 1 = 1.5 \\ & x + 10 = 15 \\ & x = 15 - 10 \\ & x = 5 \end{aligned}$$

$$\boxed{x = 5}$$

$$\begin{aligned} (6) \quad & \frac{2}{15}x = \frac{4}{5} \\ & \frac{2}{\cancel{15}}x \times \cancel{15} = \frac{4}{\cancel{5}} \times \cancel{15}^3 \\ & 2x = 12 \\ & x = 6 \end{aligned}$$

$$\boxed{x = 6}$$

5 次の比例式が成り立つとき、 $x$  の値を求めなさい。

$$\begin{aligned} (1) \quad & x : 6 = 3 : 2 \\ & x \times 2 = 6 \times 3 \\ & 2x = 18 \\ & x = 9 \end{aligned}$$

比例式の性質  
 $a : b = c : d$   
ならば、  
 $ad = bc$  を使います。

$$\boxed{x = 9}$$

$$\begin{aligned} (2) \quad & (x - 3) : 1 = 4x : 6 \\ & (x - 3) \times 6 = 4x \times 1 \\ & 6x - 18 = 4x \\ & 6x - 4x = 18 \\ & 2x = 18 \\ & x = 9 \end{aligned}$$

$$\boxed{x = 9}$$