

1

次の計算をなさい。

$$\begin{aligned} (1) & (-4) - (+9) - (-6) \\ & = -4 - 9 + 6 \\ & = -13 + 6 \\ & = -7 \end{aligned}$$

-7

$$\begin{aligned} (2) & 9 - 12 + 7 - 13 \\ & = 9 + 7 - 12 - 13 \\ & = 16 - 25 \\ & = -9 \end{aligned}$$

-9

$$\begin{aligned} (3) & (-12) \div \frac{3}{4} \times (-8) \\ & = (-12) \times \frac{4}{3} \times (-8) \\ & = 128 \end{aligned}$$

128

$$\begin{aligned} (4) & 12 - 2 \times (-6) \\ & = 12 + 12 \\ & = 24 \end{aligned}$$

① ② の順で計算します。

24

$$\begin{aligned} (5) & 2 \times (-5^2) \\ & = 2 \times (-5 \times 5) \\ & = 2 \times (-25) \\ & = -50 \end{aligned}$$

-50

$$\begin{aligned} (6) & 18 \div (-3)^2 + (-4) \\ & = 18 \div 9 + (-4) \\ & = 2 + (-4) \\ & = 2 - 4 \\ & = -2 \end{aligned}$$

-2

2

次の計算をなさい。

$$\begin{aligned} (1) & 5x - x \\ & = (5 - 1)x \\ & = 4x \end{aligned}$$

4x

$$\begin{aligned} (2) & (6x - 3) - (4x + 5) \\ & = 6x - 3 - 4x - 5 \\ & = 6x - 4x - 3 - 5 \\ & = 2x - 8 \end{aligned}$$

2x - 8

$$\begin{aligned} (3) & -5(-x + 7) + 3(6x - 4) \\ & = 5x - 35 + 18x - 12 \\ & = 5x + 18x - 35 - 12 \\ & = 23x - 47 \end{aligned}$$

23x - 47

$$\begin{aligned} (4) & \frac{x+1}{4} - \frac{x-2}{6} \\ & = \frac{3x+3-2x+4}{12} \\ & = \frac{x+7}{12} \end{aligned}$$

$\frac{x+7}{12}$

※次のページにも、問題があります。

3 $x = 3$ のとき、次の式の値を求めなさい。

$$\begin{aligned} (1) \quad & 6 - 4x \\ & = 6 - 4 \times 3 \\ & = 6 - 12 \\ & = -6 \end{aligned}$$

$$\boxed{-6}$$

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

$$\boxed{-9}$$

4 次の方程式を解きなさい。

$$\begin{aligned} (1) \quad & -6x = 3 \\ & \frac{-6x^1}{-6 \quad 1} = \frac{3^1}{-6 \quad 2} \\ & x = -\frac{1}{2} \end{aligned}$$

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

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

$$\boxed{x = -4}$$

() をふくむ方程式は、() をはずしてから解きます。

$$\begin{aligned} (3) \quad & 2x + 3 = -3x - 17 \\ & 2x + 3x = -17 - 3 \\ & 5x = -20 \\ & x = -4 \end{aligned}$$

$$\boxed{x = -4}$$

$$\begin{aligned} (4) \quad & 2(x - 4) = 9x + 20 \\ & 2x - 8 = 9x + 20 \\ & 2x - 9x = 20 + 8 \\ & -7x = 28 \\ & x = -4 \end{aligned}$$

$$\boxed{x = -4}$$

$$\begin{aligned} (5) \quad & 0.2x + 0.1 = -1.3 \\ & 2x + 1 = -13 \\ & 2x = -13 - 1 \\ & 2x = -14 \\ & x = -7 \end{aligned}$$

両辺を10倍して係数を整数にして計算します。

$$\boxed{x = -7}$$

$$\begin{aligned} (6) \quad & \frac{x+1}{5} = 2 \\ & x+1 = 10 \\ & x = 10 - 1 \\ & x = 9 \end{aligned}$$

両辺を5倍して係数を整数にして計算します。

$$\boxed{x = 9}$$

5 次の比例式が成り立つとき、 x の値を求めなさい。

$$\begin{aligned} (1) \quad & 12 : x = 4 : 7 \\ & 4x = 84 \\ & x = 21 \end{aligned}$$

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

$$\boxed{x = 21}$$

$$\begin{aligned} (2) \quad & x : (x + 15) = 3 : 8 \\ & 8x = 3(x + 15) \\ & 8x = 3x + 45 \\ & 8x - 3x = 45 \\ & 5x = 45 \\ & x = 9 \end{aligned}$$

$$\boxed{x = 9}$$