

－単項式の乗法と除法の計算ができるようになるうー p.14

学習日 月 日

年 組 番 氏名

**1** 次の計算をなさい。(p.14)

(1)  $6x \times (-3y)$

(2)  $8x \times 4y$

(3)  $8x \times (-4y)$

(4)  $(-7a) \times (-2b) \times 3c$

(5)  $6x \times \frac{1}{3}y$

**2** 次の計算をなさい。(p.14)

(1)  $(-5x)^2$

(2)  $3x \times 5y \times (-2y)$

(3)  $3a^2 \times (-3a)$

(4)  $3a \times (-6a)^2$

(5)  $2x \times (-3y) \times 4x$

(6)  $(-2b)^3$

**3** 次の計算をなさい。(p.15)

(1)  $10ab \div 2a$

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(2)  $21ab \div (-7b)$

(3)  $(-12x^3) \div 2x$

(4)  $6ab \div \frac{2}{3}b$

(5)  $\frac{4}{3}x^2y \div \left(-\frac{1}{3}xy\right)$

## 1

$$\begin{aligned}
 (1) \quad & 6x \times (-3y) \\
 &= 6 \times x \times (-3) \times y \\
 &= 6 \times (-3) \times x \times y \\
 &= -18xy
 \end{aligned}$$

$$\begin{aligned}
 (2) \quad & 8x \times 4y \\
 &= 8 \times x \times 4 \times y \\
 &= 8 \times 4 \times x \times y \\
 &= 32xy
 \end{aligned}$$

$$\begin{aligned}
 (3) \quad & 8x \times (-4y) \\
 &= 8 \times x \times (-4) \times y \\
 &= 8 \times (-4) \times x \times y \\
 &= -32xy
 \end{aligned}$$

$$\begin{aligned}
 (4) \quad & (-7a) \times (-2b) \times 3c \\
 &= (-7) \times a \times (-2) \times b \times 3 \times c \\
 &= (-7) \times (-2) \times 3 \times a \times b \times c \\
 &= 42abc
 \end{aligned}$$

$$\begin{aligned}
 (5) \quad & 6x \times \frac{1}{3}y \\
 &= \frac{6x}{1} \times \frac{y}{3} \\
 &= \frac{3 \times 2 \times x \times y}{1 \times 3} \\
 &= \frac{2xy}{1} \\
 &= 2xy
 \end{aligned}$$

## 2

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

$$\begin{aligned}
 (2) \quad & 3x \times 5y \times (-2) \\
 &= 3 \times x \times 5 \times y \times (-2) \times y \\
 &= 3 \times 5 \times (-2) \times x \times y \times y \\
 &= -30xy^2
 \end{aligned}$$

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

$$\begin{aligned}
 (4) \quad & 3a \times (-6a)^2 \\
 &= 3 \times a \times (-6a) \times (-6a) \\
 &= 3 \times (-6) \times (-6) \times a \times a \times a \\
 &= 108a^3
 \end{aligned}$$

$$\begin{aligned}
 (5) \quad & 2x \times (-3y) \times 4x \\
 &= 2 \times x \times (-3) \times y \times 4 \times x \\
 &= 2 \times (-3) \times 4 \times x \times y \times x \\
 &= -24x^2y
 \end{aligned}$$

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

## 3

$$\begin{aligned}
 (1) \quad & 10ab \div 2a \\
 &= \frac{10ab}{2a} \\
 &= \frac{2 \times 5 \times a \times b}{2 \times a} \\
 &= 5b
 \end{aligned}$$

$$\begin{aligned}
 (2) \quad & 21ab \div (-7b) \\
 &= \frac{21ab}{-7b} \\
 &= -\frac{3 \times 7 \times a \times b}{7 \times b} \\
 &= -3a
 \end{aligned}$$

$$\begin{aligned}
 (3) \quad & (-12x^3) \div 2x \\
 &= \frac{-12x^3}{2x} \\
 &= \frac{(-6) \times 2 \times x \times x \times x}{2x} \\
 &= -6x^2
 \end{aligned}$$

$$\begin{aligned}
 (4) \quad & 6ab \div \frac{2}{3}b \\
 &= \frac{6ab}{1} \div \frac{2b}{3} \\
 &= \frac{6ab}{1} \times \frac{3}{2b} \\
 &= \frac{3 \times 2 \times a \times b \times 3}{1 \times 2 \times b} \\
 &= 9a
 \end{aligned}$$

$$\begin{aligned}
 (5) \quad & \frac{4}{3}x^2y \div \left(-\frac{1}{3}xy\right) \\
 &= \frac{4x^2y}{3} \div \left(-\frac{xy}{3}\right) \\
 &= \frac{4x^2y}{3} \times \left(-\frac{3}{xy}\right) \\
 &= -\frac{4 \times x \times x \times y \times 3}{3 \times x \times y} \\
 &= -4x
 \end{aligned}$$