

単項式の計算 (4)

【1】 (多項式の復習) 次の計算をなさい。

$$\begin{aligned} (1) \quad & 2(x+5y)+3(x-3y) \\ & = 2x+3x+10y-9y \\ & = 5x+y \end{aligned}$$

$$\begin{aligned} (2) \quad & 6(x-2y)-4(x-3y) \\ & = 6x-4x-12y+12y \\ & = 2x \end{aligned}$$

【2】 次の計算をなさい。

$$\begin{aligned} (1) \quad & 6a \times (-3bc) = 6 \times (-3) \times a \times b \times c \\ & = -18abc \end{aligned}$$

$$\begin{aligned} (2) \quad & 4y \times (-2x)^2 = 4 \times (-2) \times (-2) \times x \times x \times y \\ & = 16x^2y \end{aligned}$$

$$\begin{aligned} (3) \quad & 8xy \div 2x = 8xy \times \frac{1}{2x} \\ & = 4y \end{aligned}$$

$$\begin{aligned} (4) \quad & 24x^2y \div (-9xy) = 24x^2y \times \left(-\frac{1}{9xy}\right) \\ & = -\frac{8}{3}x \end{aligned}$$

$$\begin{aligned} (5) \quad & 14x^3 \div \left(-\frac{2}{3}x\right) = 14x^3 \times \left(-\frac{3}{2x}\right) \\ & = -21x^2 \end{aligned}$$

$$\begin{aligned} (6) \quad & \left(-\frac{2}{3}bc^2\right) \div \left(-\frac{5}{3}c\right) = \left(-\frac{2}{3}bc^2\right) \times \left(-\frac{3}{5c}\right) \\ & = \frac{2}{5}bc \end{aligned}$$

$$\begin{aligned} (7) \quad & 9y^3 \div 3y \times 4x \\ & = \frac{9y^3 \times 4x}{3y} \\ & = 12xy^2 \end{aligned}$$

$$\begin{aligned} (8) \quad & 8ab^2 \times \left(-\frac{1}{4}a\right) \div 2ab \\ & = 8ab^2 \times \left(-\frac{1}{4}a\right) \times \frac{1}{2ab} \\ & = -ab \end{aligned}$$

【3】 $x = -2$, $y = 4$ のとき, 次の式の値を求めなさい。

$$\begin{aligned} (1) \quad & 2(3x+y)-3(2x+4y) \\ & = 6x-6x+2y-12y \\ & = -10y \end{aligned}$$

$$\begin{aligned} (2) \quad & 28x^2y^2 \div (-2y) \div 7x = \frac{28x^2y^2}{(-2y) \times 7x} \\ & = -2xy \end{aligned}$$

$$\begin{aligned} & -10y \text{ に値を代入して,} \\ & (-10) \times 4 = -40 \end{aligned}$$

$$\begin{aligned} & -2xy \text{ に値を代入して,} \\ & (-2) \times (-2) \times 4 = 16 \end{aligned}$$

答え -40 答え 16