

# 計算たしかめミックス (12)

名前

※ 解法は一例です。

■ (1) ~ (12) の計算をなさい。(13)、(14) は連立方程式を解きなさい。

$$\begin{aligned} (1) \quad -24a^2b^2 \div 6ab^2 &= \frac{-24a^2b^2}{6ab^2} \\ &= \frac{-24 \times a \times a \times b \times b}{6 \times a \times b \times b} \\ &= -4a \end{aligned}$$

$$\begin{aligned} (3) \quad 12a^2b \div 3b \times 5ab &= \frac{12a^2b \times 5ab}{3b} \\ &= 20a^3b \end{aligned}$$

$$\begin{aligned} (5) \quad \frac{3}{2}(4x - 12y) &= \frac{3}{2} \times 4x - \frac{3}{2} \times 12y \\ &= 6x - 18y \end{aligned}$$

$$\begin{aligned} (7) \quad \frac{2a - 3b}{4} - \frac{3a - 4b}{3} &= \frac{3(2a - 3b)}{12} - \frac{4(3a - 4b)}{12} \\ &= \frac{3(2a - 3b) - 4(3a - 4b)}{12} \\ &= \frac{6a - 9b - 12a + 16b}{12} \\ &= \frac{-6a + 7b}{12} \end{aligned}$$

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

$$\begin{aligned} (11) \quad (2x - 5y) + (-4x + 3y) &= 2x - 5y - 4x + 3y \\ &= (2 - 4)x + (-5 + 3)y \\ &= -2x - 2y \end{aligned}$$

$$(13) \quad \begin{cases} x + y = 3 & \dots\dots ① \\ 2x - y = 3 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \quad x + y = 3 \\ ② \quad +) 2x - y = 3 \\ \hline 3x = 6 \\ x = 2 \end{array}$$

$x = 2$  を ① に代入すると  $2 + y = 3$   
 $y = 1$

よって  $x = 2, y = 1$

$$\begin{aligned} (2) \quad (2x + 3y) - (4x - y) - (x - 5y) &= 2x + 3y - 4x + y - x + 5y \\ &= (2 - 4 - 1)x + (3 + 1 + 5)y \\ &= -3x + 9y \end{aligned}$$

$$\begin{aligned} (4) \quad (12x - 20y) \div 4 &= \frac{12x}{4} - \frac{20y}{4} \\ &= 3x - 5y \end{aligned}$$

$$\begin{aligned} (6) \quad 24a^3b \div 2a \div 6ab &= \frac{24a^3b}{2a \times 6ab} \\ &= 2a \end{aligned}$$

$$\begin{aligned} (8) \quad 5a - 4 - \{3b + (2a - b) + 6\} &= 5a - 4 - (3b + 2a - b + 6) \\ &= 5a - 4 - 3b - 2a + b - 6 \\ &= (5 - 2)a + (-3 + 1)b + (-4 - 6) \\ &= 3a - 2b - 10 \end{aligned}$$

$$\begin{aligned} (10) \quad 3(x + y) + 2(2x - 3y) &= 3x + 3y + 4x - 6y \\ &= (3 + 4)x + (3 - 6)y \\ &= 7x - 3y \end{aligned}$$

$$\begin{aligned} (12) \quad (4a^2 + 3a - 2) - (-a^2 - a + 5) &= 4a^2 + 3a - 2 + a^2 + a - 5 \\ &= (4 + 1)a^2 + (3 + 1)a + (-2 - 5) \\ &= 5a^2 + 4a - 7 \end{aligned}$$

$$(14) \quad \begin{cases} 3x - 2y = 5 & \dots\dots ① \\ 2x + 3y = -1 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \times 3 \quad 9x - 6y = 15 \\ ② \times 2 \quad +) 4x + 6y = -2 \\ \hline 13x = 13 \\ x = 1 \end{array}$$

$x = 1$  を ① に代入すると  $3 - 2y = 5$   
 $-2y = 2$   
 $y = -1$

よって  $x = 1, y = -1$