

# 計算たしかめミックス (9)

名

※ 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。

$$\begin{aligned} (1) \quad & \frac{a-b}{4} - \frac{a+b}{5} \\ &= \frac{5(a-b)}{20} - \frac{4(a+b)}{20} \\ &= \frac{5(a-b) - 4(a+b)}{20} \\ &= \frac{5a - 5b - 4a - 4b}{20} \\ &= \frac{a - 9b}{20} \end{aligned}$$

$$\begin{aligned} (3) \quad & (36x - 24y) \div 6 = \frac{36x}{6} - \frac{24y}{6} \\ &= 6x - 4y \end{aligned}$$

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

$$\begin{aligned} (7) \quad & 3a \times (-4ab) = 3 \times a \times (-4) \times a \times b \\ &= 3 \times (-4) \times a \times a \times b \\ &= -12a^2b \end{aligned}$$

$$\begin{aligned} (9) \quad & 21a^2b \div 9ab = \frac{21a^2b}{9ab} \\ &= \frac{21 \times a \times a \times b}{9 \times a \times b} \\ &= \frac{7}{3}a \end{aligned}$$

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

$$(13) \quad \begin{cases} 3x - 5y = 11 & \dots\dots ① \\ x = -2y & \dots\dots ② \end{cases}$$

② を ① に代入すると

$$3 \times (-2y) - 5y = 11$$

$$-11y = 11$$

$$y = -1$$

$y = -1$  を ② に代入すると

$$x = -2 \times (-1) = 2$$

よって  $x = 2, y = -1$

$$\begin{aligned} (2) \quad & 9a - \{3b + (7a + b) - 5\} \\ &= 9a - (3b + 7a + b - 5) \\ &= 9a - 3b - 7a - b + 5 \\ &= (9-7)a + (-3-1)b + 5 \\ &= 2a - 4b + 5 \end{aligned}$$

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

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

$$\begin{aligned} (8) \quad & 5(2x - y) + 3(x - 3y) \\ &= 10x - 5y + 3x - 9y \\ &= (10+3)x + (-5-9)y \\ &= 13x - 14y \end{aligned}$$

$$\begin{aligned} (10) \quad & (5x + 2y) + (3x - 4y) - (x + 6y) \\ &= 5x + 2y + 3x - 4y - x - 6y \\ &= (5+3-1)x + (2-4-6)y \\ &= 7x - 8y \end{aligned}$$

$$\begin{aligned} (12) \quad & \frac{3}{2}(12x + 16y) = \frac{3}{2} \times 12x + \frac{3}{2} \times 16y \\ &= 18x + 24y \end{aligned}$$

$$(14) \quad \begin{cases} 5x - 2y = 19 & \dots\dots ① \\ 4x + 5y = 2 & \dots\dots ② \end{cases}$$

$$\begin{array}{r} ① \times 5 \qquad \qquad 25x - 10y = 95 \\ ② \times 2 \qquad \qquad +) \quad 8x + 10y = 4 \\ \hline \qquad \qquad \qquad 33x \qquad \qquad = 99 \end{array}$$

$$x = 3$$

$x = 3$  を ① に代入すると

$$15 - 2y = 19$$

$$-2y = 4$$

$$y = -2 \quad \text{よって} \quad x = 3, y = -2$$