

# 解答 (P14, 15)

たしかめ④

$$\begin{aligned}
 (1) \quad & 5(x+3y) \\
 &= 5 \times x + 5 \times 3y \\
 &= 5x + 15y
 \end{aligned}$$

$$\begin{aligned}
 (2) \quad & -3(2x-4y-3) \\
 &= -3 \times 2x - 3 \times (-4y) - 3 \times (-3) \\
 &= -6x + 12y + 9
 \end{aligned}$$

慣れたら途中式を省略しよう。  
(特に (1) と (2) )

問 5

$$\begin{aligned}
 (1) \quad & 4(3x-y+2) & (2) \quad & -7(-2x+3y) \\
 &= 12x-4y+8 & &= 14x-21y
 \end{aligned}$$

$$\begin{aligned}
 (3) \quad & 6\left(\frac{a}{3}-\frac{b}{2}\right) & (4) \quad & (-4x-6y+10) \times \left(-\frac{1}{2}\right) \\
 &= 2a-3b & &= 2x+3y-5
 \end{aligned}$$

たしかめ⑤

$$\begin{aligned}
 & (12x-20y) \div 4 \\
 &= (12x-20y) \times \frac{1}{4} \quad \left. \begin{array}{l} \text{「} \div \text{」も「} \times \text{」に} \\ \text{分配法則} \end{array} \right\} \\
 &= 12x \times \frac{1}{4} - 20y \times \frac{1}{4} \\
 &= 3x-5y
 \end{aligned}$$

問 6

$$\begin{aligned}
 (1) \quad & (-9a+12b) \div 3 \\
 &= -3a+4b
 \end{aligned}$$

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

$$\begin{aligned}
 (2) \quad & (15x^2-5x+30) \div (-5) \\
 &= -3x^2+x-6
 \end{aligned}$$

問 7

$$\begin{aligned}
 (1) \quad & 2(x+4y)+3(x-5y) \\
 &= 2x+8y+3x-15y \\
 &= 2x+3x+8y-15y \\
 &= 5x-7y
 \end{aligned}$$

$$\begin{aligned}
 (2) \quad & 4(3a-2b)+6(-a+3b) \\
 &= 12a-8b-6a+18b \\
 &= 12a-6a-8b+18b \\
 &= 6a+10b
 \end{aligned}$$

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

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

問 8

$$\begin{aligned}
 & 3(2x-4y)-4(x+3y) \\
 &= 6x-12y-4x-12y \\
 &= 6x-4x-12y-12y \\
 &= 2x-24y
 \end{aligned}$$

問 9

$$\begin{aligned}
 (1) \quad & \frac{7x-4y}{10} + \frac{x+2y}{5} \\
 &= \frac{7x-4y}{10} + \frac{2(x+2y)}{10} \quad \left. \begin{array}{l} \text{通分} \\ \text{1つの分数に} \\ \text{()もはさむ} \end{array} \right\} \\
 &= \frac{7x-4y+2(x+2y)}{10} \\
 &= \frac{7x-4y+2x+4y}{10} \\
 &= \frac{9x}{10}
 \end{aligned}$$

$$\begin{aligned}
 (2) \quad & \frac{5x-y}{3} + \frac{3x+y}{2} \\
 &= \frac{2(5x-y)}{6} + \frac{3(3x+y)}{6} \\
 &= \frac{2(5x-y)+3(3x+y)}{6} \\
 &= \frac{10x-2y+9x+3y}{6} \\
 &= \frac{19x+y}{6}
 \end{aligned}$$

$$\begin{aligned}
 (3) \quad & \frac{2a+b}{3} - \frac{a-2b}{6} \\
 &= \frac{2(2a+b)}{6} - \frac{a-2b}{6} \\
 &= \frac{2(2a+b) - (a-2b)}{6} \quad \leftarrow \text{ ( ) へ } \uparrow \uparrow \uparrow \downarrow \\
 &= \frac{4a+2b-a+2b}{6} \\
 &= \frac{3a+4b}{6}
 \end{aligned}$$

$$\begin{aligned}
 (4) \quad & x+y - \frac{x-6y}{3} \\
 &= \frac{x+y}{1} - \frac{x-6y}{3} \\
 &= \frac{3(x+y)}{3} - \frac{x-6y}{3} \\
 &= \frac{3(x+y) - (x-6y)}{3} \\
 &= \frac{3x+3y-x+6y}{3} \\
 &= \frac{2x+9y}{3}
 \end{aligned}$$