

# 式の計算（多項式の乗法②）

組 番 名前

1 次の計算をしなさい。

$$\begin{aligned} \textcircled{1} \quad (a+b)(x-y) \\ = ax - ay + bx - by \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad (x-6)(y+3) \\ = xy + 3x - 6y - 18 \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad (2x+1)(3x-4) \\ = 6x^2 - 8x + 3x - 4 \\ = 6x^2 - 5x - 4 \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad (a+b)(3a-2b) \\ = 3a^2 - 2ab + 3ab - 2b^2 \\ = 3a^2 + ab - 2b^2 \end{aligned}$$

$$\begin{aligned} \textcircled{5} \quad (2x-3y)(5x+6y) \\ = 10x^2 + 12xy - 15xy - 18y^2 \\ = 10x^2 - 3xy - 18y^2 \end{aligned}$$

$$\begin{aligned} \textcircled{6} \quad (x+3)(x-y+4) \\ = x^2 - xy + 4x + 3x - 3y + 12 \\ = x^2 - xy + 7x - 3y + 12 \end{aligned}$$

$$\begin{aligned} \textcircled{7} \quad (a+2)(a+b-3) \\ = a^2 + ab - 3a + 2a + 2b - 6 \\ = a^2 + ab - a + 2b - 6 \end{aligned}$$

$$\begin{aligned} \textcircled{8} \quad (2x-3)(x-2y+3) \\ = 2x^2 - 4xy + 6x - 3x + 6y - 9 \\ = 2x^2 - 4xy + 3x + 6y - 9 \end{aligned}$$

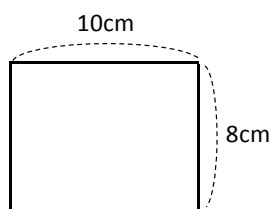
$$\begin{aligned} \textcircled{9} \quad (4x-y+5)(3x-y) \\ = 12x^2 - 4xy - 3xy + y^2 + 15x - 5y \\ = 12x^2 - 7xy + y^2 + 15x - 5y \end{aligned}$$

$$\begin{aligned} \textcircled{10} \quad (x+2y+4)(-x-y-1) \\ = -x^2 - xy - x - 2xy - 2y^2 - 2y - 4x - 4y - 4 \\ = -x^2 - 3xy - 5x - 2y^2 - 6y - 4 \end{aligned}$$

$$\begin{aligned} \textcircled{11} \quad (2x+1)(x-3) + (3x-2)(x+1) \\ = 2x^2 - 6x + x - 3 + 3x^2 + 3x - 2x - 2 \\ = 5x^2 - 4x - 5 \end{aligned}$$

$$\begin{aligned} \textcircled{12} \quad (a-4b)(5a+b) - (2a+b)(a-3b) \\ = 5a^2 + ab - 20ab - 4b^2 - 2a^2 + 6ab - ab + 3b^2 \\ = 3a^2 - 14ab - b^2 \end{aligned}$$

2 下の図のような長方形を縦の長さを  $a$  cm 長くし、横の長さを  $b$  cm 短くした長方形の面積を  $a, b$  を使った式で表しなさい。



$$\begin{aligned} (8+a)(10-b) \\ = 80 - 8b + 10a - ab \end{aligned}$$