

# 式の計算（多項式の乗法）

組 番 名前

1 次の計算をなさい。

$$\begin{aligned} \textcircled{1} \quad & (a-b)(c+d) \\ & = ac+ad-bc-bd \end{aligned}$$

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

$$\begin{aligned} \textcircled{3} \quad & (x-4)(y-6) \\ & = xy-6x-4y+24 \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & (a+6)(b-4) \\ & = ab-4a+6b-24 \end{aligned}$$

$$\begin{aligned} \textcircled{5} \quad & (3a+1)(a+4) \\ & = 3a^2+12a+a+4 \\ & = 3a^2+13a+4 \end{aligned}$$

$$\begin{aligned} \textcircled{6} \quad & (a-2)(2a+3) \\ & = 2a^2+3a-4a-6 \\ & = 2a^2-a-6 \end{aligned}$$

$$\begin{aligned} \textcircled{7} \quad & (a+4)(3a-1) \\ & = 3a^2-a+12a-4 \\ & = 3a^2+11a-4 \end{aligned}$$

$$\begin{aligned} \textcircled{8} \quad & (2x-7)(5x-3) \\ & = 10x^2-6x-35x+21 \\ & = 10x^2-41x+21 \end{aligned}$$

$$\begin{aligned} \textcircled{9} \quad & (a+b)(a+2b) \\ & = a^2+2ab+ab+2b^2 \\ & = a^2+3ab+2b^2 \end{aligned}$$

$$\begin{aligned} \textcircled{10} \quad & (3x-4y)(7x+2y) \\ & = 21x^2+6xy-28xy-8y^2 \\ & = 21x^2-22xy-8y^2 \end{aligned}$$

$$\begin{aligned} \textcircled{11} \quad & (6a-5b)(4a-3b) \\ & = 24a^2-18ab-20ab+15b^2 \\ & = 24a^2-38ab+15b^2 \end{aligned}$$

$$\begin{aligned} \textcircled{12} \quad & \left(\frac{1}{3}x+3\right)\left(\frac{1}{2}x-2\right) = \frac{1}{6}x^2 - \frac{2}{3}x + \frac{3}{2}x - 6 \\ & = \frac{1}{6}x^2 + \frac{5}{6}x - 6 \end{aligned}$$

2 Aさんは $(8a-6b)(8a+4b)$ を下のように計算した。間違っている部分に○をつけ、正しい答えを求めなさい。

間違った計算

$$\begin{aligned} & (8a-6b)(8a+4b) \\ & = (8a)^2 + (-6b+4b) \times a + (-6a) \times 4b \\ & = 64a^2 - 2ab - 24b^2 \end{aligned}$$

$$\begin{aligned} & = (8a)^2 + (-6b+4b) \times 8 \times a + (-6b) \times 4b \\ & = 64a^2 - 16ab - 24b^2 \end{aligned}$$

正しい答え  $64a^2 - 16ab - 24b^2$