

# 式の計算（乗法公式②）

組 番 名前

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1 次の式を展開しなさい。

$$\begin{aligned} \textcircled{1} \quad (x+1)(x+6) \\ = x^2 + 7x + 6 \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad (x-5)(x-3) \\ = x^2 - 8x + 15 \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad (x-8)^2 \\ = x^2 - 16x + 64 \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad (x+7y)^2 \\ = x^2 + 14xy + 49y^2 \end{aligned}$$

3 次の式を展開しなさい。

$$\begin{aligned} \textcircled{1} \quad (x+3)(x-3) \\ = x^2 - 9 \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad (a+5)(a-5) \\ = a^2 - 25 \end{aligned}$$

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

$$\begin{aligned} \textcircled{4} \quad (6-x)(6+x) \\ = 36 - x^2 \end{aligned}$$

$$\begin{aligned} \textcircled{5} \quad (4-x)(4+x) \\ = 16 - x^2 \end{aligned}$$

$$\begin{aligned} \textcircled{6} \quad (x-7)(7+x) \\ = x^2 - 49 \end{aligned}$$

$$\begin{aligned} \textcircled{7} \quad (x+12)(x-12) \\ = x^2 - 144 \end{aligned}$$

2 次の式を簡単にしなさい。

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

$$\begin{aligned} \textcircled{2} \quad (x+2)(x-3) + (x+5)(x-5) \\ = x^2 - x - 6 + x^2 - 25 \\ = 2x^2 - x - 31 \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad (x+4)^2 - (x-4)^2 \\ = x^2 + 8x + 16 - x^2 + 8x - 16 \\ = 16x \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad (x-4)(x+7) - (x-3)(x-1) \\ = x^2 + 3x - 28 - x^2 + 4x - 3 \\ = 7x - 31 \end{aligned}$$