

● 例題 6 和と差の積

教科書 p.14~15

次の式を展開しなさい。

(1) $(x+3)(x-3)$

(2) $(y+\frac{1}{2})(y-\frac{1}{2})$

(3) $(8+a)(8-a)$

How 展開 $(a+b)(x+y) = ax + ay + bx + by$

() の中の項をそれぞれ、組み合わせでかけあわせる

$$(x+a)(x-a) = x^2 - a^2$$

$$\begin{aligned} (1) \quad & (x+3)(x-3) \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{展開} \\ & = x^2 - 3^2 \\ & = x^2 - 9 \end{aligned}$$

$$\begin{aligned} (2) \quad & (y+\frac{1}{2})(y-\frac{1}{2}) \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{展開} \\ & = y^2 - (\frac{1}{2})^2 \\ & = y^2 - \frac{1}{4} \end{aligned}$$

$$\begin{aligned} (3) \quad & (8+a)(8-a) \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{展開} \\ & = 8^2 - a^2 \\ & = 64 - a^2 \end{aligned}$$