

< 乗法公式 2・3 >

平方公式

$$(a \pm b)^2 = a^2 \pm 2ab + b^2$$

Diagram illustrating the expansion of the square formula. Red arrows show the components: a horizontal arrow labeled "積" (Product) from a to b , a horizontal arrow labeled "2倍" (2 times) from a to $2ab$, and two vertical arrows labeled "2乗" (2 times power) from a and b to a^2 and b^2 respectively.

問1 次の式を展開しなさい。

$(x-3)^2$

$(x+5)^2$

$(y+4)^2$

$(a+10)^2$

$(a+b)^2$

$(x-y)^2$

$\left(y + \frac{1}{2}\right)^2$

$\left(a - \frac{1}{3}\right)^2$

$\left(b + \frac{1}{4}\right)^2$

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和と差の式

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

問2 次の式を展開しなさい。

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

$(a-5)(a+5)$

$(y+4)(y-4)$

$(a+b)(a-b)$

$(x-y)(x+y)$

$\left(x + \frac{2}{3}\right)\left(x - \frac{2}{3}\right)$

$(3x+5y)(3x-5y)$

$(-2a+3b)(-2a-3b)$