

Productos Notables

$$(a+b)^2 = (a+b)(a+b) = a^2 + \cancel{1ab} + \cancel{1ba} + b^2 = a^2 + 2ab + b^2$$

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

$$(a-b)^2 = (a-b)(a-b) = a^2 - \cancel{ab} - \cancel{ba} + b^2 =$$
$$= a^2 - 2ab + b^2$$

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

$$(a+b)(a-b) = a^2 - \cancel{ab} + \cancel{ba} - b^2 = a^2 + 0ab - b^2$$

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

$$(2x-y)(2x+y) = (2x)^2 - (y)^2$$
$$= 4x^2 - y^2$$

$$(x+a)(x+b) = x^2 + \cancel{x}b + \cancel{a}x + ab = x^2 + (a+b)x + ab =$$

$$(x+a)(x+b) = x^2 + (a+b)x + ab$$

$$(x+1)(x-3) = x^2 + (1+(-3))x - 3$$
$$= x^2 - 2x - 3$$

$$(a+b)^3 = (a+b)(a+b)(a+b) = (a^2 + 2ab + b^2)(a+b) =$$
$$= a^3 + \cancel{a^2b} + \cancel{2a^2b} + \cancel{2ab^2} + \cancel{b^2a} + b^3 =$$
$$= a^3 + 3a^2b + 3ab^2 + b^3$$