

WZORY SKRÓCONIENIA I MNÓŻENIA

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

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

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

$$(4x+2)(4x-2) = (4x)^2 - 2^2 = 16x^2 - 4$$

$$(2y-5)(2y+5) = 4y^2 - 25$$

$$(3b-4)(3b+4) = (3b)^2 - 4^2 = 9b^2 - 16$$

$$(7z-3)(3+7z) = (7z)^2 - 3^2 = 49z^2 - 9$$

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

$$x^2 + 2x + 1 - (4x^2 - 12x + 9) - (x^2 - 9)$$

$$\underline{x^2 + 2x + 1} - \underline{4x^2 + 12x - 9} - \underline{x^2 + 9}$$

$$-4x^2 + 14x + 1$$

$$(3x-2)(3x+2) - (4x+1)^2 - (x-3)^2$$

$$9x^2 - 4 - (16x^2 + 8x + 1) - (x^2 - 6x + 9)$$

$$\underline{9x^2 - 4 - 16x^2 - 8x - 1 - x^2 + 6x - 9}$$

$$-8x^2 - 2x - 14$$

$$(3x+2)^2 - (3x-2)^2 - (4x-1)(4x+1)$$

$$(3x+2)(3x+2)$$

Zadanie domowe

$$9x^2 + 12x + 4 - (4x^2 - 12x + 4) - (16x^2 - 1)$$

$$(5x-2)^2 - (4x+2)^2 - (3x-2)(3x+2)$$

$$(4x-3)^2 - (2x+1)(2x-1) - (3x+5)^2$$