

Раскрытие скобок и приведение подобных

$$1) (2a + b)(5b - 8a) = 2a \cdot (5b - 8a) + b \cdot (5b - 8a) = 2a \cdot 5b - 2a \cdot 8a + b \cdot 5b - b \cdot 8a = 10ab - 16a^2 + 5b^2 - 8ab = 2ab - 16a^2 + 5b^2$$

$$2) (-2a + b - 2ab)(11a - 3ab) = (-2a + b - 2ab) \cdot 11a - 3ab(-2a + b - 2ab)$$

$$= (-2a + b - 2ab)11a - (-2a + b - 2ab)3ab$$

$$= 11a(-2a + b - 2ab) - 3ab(-2a + b - 2ab) =$$

$$= 11a \cdot (-2a) + 11a \cdot b - 11a \cdot 2ab - 3ab \cdot (-2a) - 3ab \cdot b - 3ab \cdot (-2ab) =$$

$$= -22a^2 + 11ab - 22ba^2 + 6ba^2 - 3ab^2 + 6a^2b^2$$

$$= -16ba^2 - 22a^2 + 11ab - 3ab^2 + 6a^2b^2$$

$$= 11a \cdot (-2a) + 11a \cdot b - 11a \cdot 2ab + (-3ab) \cdot (-2a) + (-3ab) \cdot b - (-3ab) \cdot 2ab$$

$$(a+b+c)(x-y) = (a+b+c) \cdot x + (a+b+c) \cdot (-y)$$

$$(a+b+c)(x-y) = (a+b+c) \cdot x - (a+b+c) \cdot y$$

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

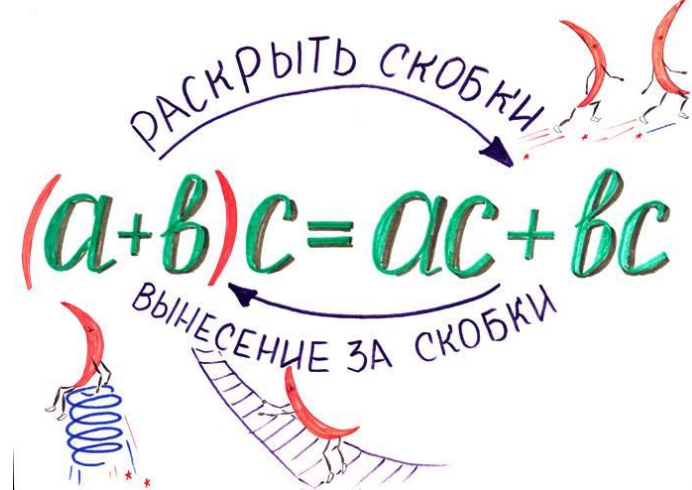
$$(x-2y)(y+3x) = x \cdot (y+3x) - 2y \cdot (y+3x) = x \cdot y + x \cdot 3x - 2y \cdot y - 2y \cdot 3x = xy + 3x^2 - 2y^2 - 6xy = -5xy + 3x^2 - 2y^2$$

$$(x+2y-3yx)(-10x+5y) = -10x \cdot (x+2y-3yx) + 5y \cdot (x+2y-3yx) = -10x \cdot x - 10x \cdot 2y - 10x \cdot (-3yx) + 5y \cdot x + 5y \cdot 2y + 5y \cdot (-3yx) = -10x^2 - 20xy + 30xy + 5xy + 10y^2 - 15xy^2 = 15xy - 10x^2 + 10y^2 - 15xy^2$$

$$-2x \cdot (5x + (-3y)) = -2x \cdot 5x + (-2x) \cdot (-3y) = -10x^2 + 6xy$$

$$-2x(5x - 3y) = -10x^2 + 6xy$$

$$(-5a+b)(-2b-3a) = -5a \cdot (-2b-3a) + b \cdot (-2b-3a) = -5a \cdot (-2b) + (-5a) \cdot (-3a) + b \cdot (-2b) + b \cdot (-3a) = 10ab + 15a^2 - 2b^2 - 3ab = 7ab + 15a^2 - 2b^2$$



### ДОМАШНЕЕ ЗАДАНИЕ

раскрыть скобки и привести подобные слагаемые

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

$$2) (x+2y-3yx)(-10x+5y) =$$