

Привести подобные слагаемые

$$1) 2a + b - a + 10b + 1 = a(2-1) + b(1+10) + 1 = 1a + b11 + 1 = a + 11b + 1$$

$$2) 7x - 2y = \dots$$

(если буквенная часть не совпадает, то складывать нельзя)

$$3) 5a^2b + 7 + x^2y - 8ba^2 + 10xy =$$



$$125xy^3 - 25x^2y = xy(125y^2 - 25x) = 25xy(5y^2 - x)$$

$$21a^3b^2 - 14a^2b^4 =$$

$$21a^3b^2 - 14a^2b^4 = a^2b^2(21a - 14b^2) = 7a^2b^2(3a - 2b^2)$$

$$12x^5y^2 - 16xy^4 = xy^2(12x^4 - 16y^2) = 4xy^2(3x^4 - 4y^2)$$

$$30x^2yz^3 - 25yx^2z^3 + z^3x^2y = x^2yz^3(30 - 25 + 1) = 6x^2yz^3$$

$$-25x^2y + 10xy + 6 - 15yx^2 - xy - 1$$

$$= x^2y(-25 - 15) + xy(10 - 1) + 6 - 1 = x^2y(-40) + xy(9) + 5 = -40x^2y + 9xy + 5$$

ДЗ

раскрыть скобки

$$1) 7a(a-5) = 7a^2 + 7a(-5) = 7a^2 - 35a$$

$$2) (t+y)(u+p) = (t+y)u + (t+y)p = tu + yu + tp + yp$$

$$(t+y)(u+p) = (u+p)t + (u+p)y = ut + pt + uy + py$$

$$4) (3d^2 + 5dh)(7 - 12d + 2h) = (7 - 12d + 2h) \cdot 3d^2 + (7 - 12d + 2h) \cdot 5dh = 21d^2 + (-36d^3) + 6hd^2 + 35dh + (-60hd^2) + 10dh^2 = 21d^2 - 36d^3 + 6hd^2 + 35dh - 60hd^2 + 10dh^2$$

привести подобные слагаемые

$$1) 65h^2g^2 - 15g^2h = h^2g^2(65 - 15) = 50h^2g^2$$

$$2) -7 + 28x^2 - 12xy - 10x^2 + 2xy + 5 = x^2(28 - 10) + xy(2 - 12) + 5 - 7 = x^2(18) + xy(-10) - 2 = 18x^2 - 10xy - 2$$

$$3) 5a^2b + 7 + x^2y - 8ba^2 + 10xy = ba^2(5 - 8) + 7 + yx^2 + 10xy = -3ba^2 + 7 + yx^2 + 10xy$$

вынести за скобки общий множитель

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

$$2) 3x^2y - 2x^2 = x^2(3y - 2)$$

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

раскрыть скобки И привести подобные слагаемые

$$1) (2x-3y)(x+7y) = (2x-3y)x + (2x-3y)7y = 2x^2 + (-3xy) + 14xy + (-21y^2) = 2x^2 - 3xy + 14xy - 21y^2 = xy(-3 + 14) + 2x^2 - 21y^2 = xy(11) + 2x^2 - 21y^2 = 11xy + 2x^2 - 21y^2$$

$$(2x-3y)(x+7y) = (x+7y)2x + (x+7y)(-3y) = 2x^2 + 14xy - 3xy - 21y^2 = xy(14 - 3) + 2x^2 - 21y^2 = 11xy + 2x^2 - 21y^2$$

$$2) (-a+2b)(-b-3a) = (-a+2b)(-b) + (-a+2b)(-3a) = ab + (-2b^2) + 3a^2 + (-6ab) = 1ab - 2b^2 + 3a^2 - 6ab = ab(-6 + 1) - 2b^2 + 3a^2 = ab(-5) - 2b^2 + 3a^2 = -5ab - 2b^2 + 3a^2$$

$$(-a+2b)(-b-3a) = (-b-3a)(-a) + (-b-3a)2b = ba + 3a^2 - 2b^2 - 6ab = ab(1 - 6) + 3a^2 - 2b^2 = -5ab + 3a^2 - 2b^2$$

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

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

$$= 2x^2 - 4xy + (-3xy) + 6y^2 + 6yx^2 + (-12xy^2) =$$

$$= 2x^2 - 4xy - 3xy + 6y^2 + 6yx^2 - 12xy^2 =$$

$$= xy(-4 - 3) + 2x^2 + 6y^2 + 6yx^2 - 12xy^2 =$$

$$= -7xy + 2x^2 + 6y^2 + 6yx^2 - 12xy^2$$

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

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

$$= 2x^2 - 3xy + 6yx^2 - 4xy + 6y^2 - 12xy^2 =$$

$$= xy(-4 - 3) + 2x^2 + 6yx^2 + 6y^2 - 12xy^2 =$$

$$= -7xy + 2x^2 + 6yx^2 + 6y^2 - 12xy^2$$

$$(-x+2y-xy)(2xy-7y+x) =$$

$$= (2xy-7y+x)(-x) + (2xy-7y+x)2y + (2xy-7y+x)(-xy) =$$

$$= -2yx^2 + 7yx - x^2 + 4xy^2 - 14y^2 + 2xy - 2x^2y^2 + 7xy^2 - yx^2 =$$

$$= yx^2(-2 - 1) + yx(7 + 2) + xy^2(4 + 7) - x^2 - 14y^2 - 2x^2y^2 =$$

$$= -3yx^2 + 9yx + 11xy^2 - x^2 - 14y^2 - 2x^2y^2$$