

Раскрытие скобок и приведение подобных

$$1) (2a + b)(5b - 8a) =$$

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

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

$$\begin{aligned} (2a + b)(5b - 8a) &= (2a + b) \cdot 5b - (2a + b) \cdot 8a = \\ &= 10ab + 5b^2 - 16a^2 - 8ab = ab(10 - 8) + 5b^2 - 16a^2 = \\ &= 2ab + 5b^2 - 16a^2 \end{aligned}$$

$$\begin{aligned} (2a + b)(5b - 8a) &= 2a(5b - 8a) + b(5b - 8a) \\ &= 10ab - 16a^2 + 5b^2 - 8ab = ab(10 - 8) - 16a^2 + 5b^2 = \\ &= 2ab - 16a^2 + 5b^2 \end{aligned}$$

$$(2a + b)(5b - 8a)$$

приведение подобных

$$a \cdot (b + c) = a \cdot b + a \cdot c$$



$$\begin{aligned} - (2a + b) \cdot 8a &= (-1) \cdot (2a + b) \cdot 8a = \\ &= (-1) \cdot 8a \cdot (2a + b) = (-8a) \cdot (2a + b) = \\ &= (-8a) \cdot 2a + (-8a) \cdot b = -16a^2 + (-8ab) \end{aligned}$$

$$x - y = x + (-y) = x + (-1) \cdot y$$

$$\begin{aligned} (-2a + b - 2ab)(11a - 3ab) &= 11a \cdot (-2a + b - 2ab) - 3ab(-2a + b - \\ &= -22a^2 + 11ab - 22a^2b + 6a^2b - 3ab^2 + 6a^2b^2 = -3ab^2 + 6a^2b^2 \\ &= a^2b(-22 + 6) - 22a^2 + 11ab = -3ab^2 + 6a^2b^2 - 16a^2b - 22a^2 + 11ab \end{aligned}$$

$$\begin{aligned} (-2a + b - 2ab)(11a - 3ab) &= -2a(11a - 3ab) + b(11a - 3ab) - 2ab(11a - \\ &= -22a^2 + 6a^2b + 11ab - 3ab^2 - 22a^2b + 6a^2b^2 = a^2b(6 - 22) - 22a^2 + \\ &= 11ab - 3ab^2 + 6a^2b^2 = -16a^2b - 22a^2 + 11ab - 3ab^2 + 6a^2b^2 \end{aligned}$$