

Feb. 19, 2018

Sect. 5-2

Multiplying Polynomials

Distributive Property

FOIL

Distributive
Property

$$2x(5x + 3)$$

$$2x(5x) + 2x(3)$$

$$10x^2 + 6x$$

$$4x(2x + 4)$$

$$4x(2x) + 4x(4)$$

$$8x^2 + 16x$$

$$3a^2(-5a^3 + 2a - 7)$$

$$3a^2(-5a^3) + 3a^2(2a) + 3a^2(-7)$$
$$-15a^5 + 6a^3 - 21a^2$$

$$5s(8t^4 - 4s^2 - 9t - 11)$$

$$40st^4 - 20s^3 - 45st - 55s$$

FOIL:

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

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

$$x^2 - 2x + 3x - 6$$

$$x^2 + x - 6$$

First
Outside
Inside
Last

$$(x+3)(x+4)$$

$$x(x) + x(4) + 3(x) + 3(4)$$

$$x^2 + 4x + 3x + 12$$

$$x^2 + 7x + 12$$

$$(x+3)(x-5)$$

$$x^2 - 5x + 3x - 15$$

$$x^2 - 2x - 15$$

$$(2x^5 + x^2)(-x^3 + x)$$
$$-2x^8 + 2x^6 - x^5 + x^3$$

$$(3x - 2a)(4x + 7b)$$
$$12x^2 + 21bx - 8ax - 14ab$$