

6.4 Multiplying Binomials - Day 2

FOIL is used to: multiply 2 binomials

*is a double distributive

Examples: Multiply.

1. $(n+3)(2n-3)$

F + O + I + L

$$n(2n) + n(-3) + 3(2n) + 3(-3)$$

$$2n^2 - 3n + 6n - 9$$

$$\boxed{2n^2 + 3n - 9}$$

2. $(x-5)(2+x)$

$$x(2) + x(x) - 5(2) - 5(x)$$

$$2x + x^2 - 10 - 5x$$

$$\boxed{x^2 - 3x - 10}$$

3. $(y-5)^2$

$$(y-5)(y-5)$$

$$y(y) + y(-5) - 5(y) - 5(-5)$$

$$y^2 - 5y - 5y + 25$$

$$\boxed{y^2 - 10y + 25}$$

4. $(a+b)^2$

$$(a+b)(a+b)$$

$$a(a) + a(b) + b(a) + b(b)$$

$$a^2 + ab + ab + b^2$$

$$\boxed{a^2 + 2ab + b^2}$$

5. $(5-b)(2-3b)$

$$5(2) + 5(-3b) - b(2) - b(-3b)$$

$$10 - 15b - 2b + 3b^2$$

$$\boxed{3b^2 - 17b + 10}$$

6. $(x+7)^2$

$$(x+7)(x+7)$$

$$x(x) + x(7) + 7(x) + 7(7)$$

$$x^2 + 7x + 7x + 49$$

$$\boxed{x^2 + 14x + 49}$$

HOMEWORK

Worksheet - HW 6.4 Multiplying
Binomials - Day 2