

Advanced Distributive Property

Learning Goal:

By the end of today, we will be able to apply the Distributive property to expressions involving decimals and fractions.

By the end of today, we will be able to apply the Distributive Property to two binomials being multiplied together.

x^2

$-x^2$

x

$-x$

x

$-x$

-1

1

Expand/Multiply $-2x(2x + 3)$
 (use the dimensions to find the area)

Expand and Simplify

$$2.5(4x^2 + 8x - 10)$$

Expand and Simplify

$$0.5x^3 (18x^2 + 5x)$$

Expand and Simplify

$$3x^2 (4x + 5)$$

Expand and Simplify

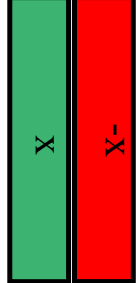
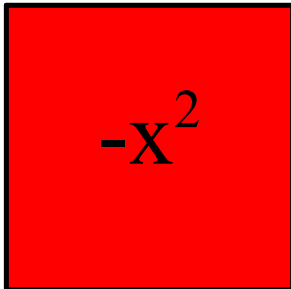
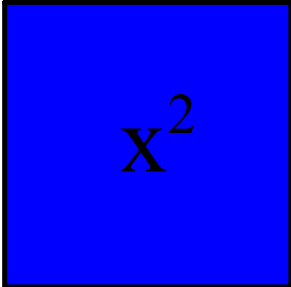
$$\frac{3}{4}(12x + 8)$$

Expand and Simplify

$$6(2x + 5a - 7b)$$

Binomial x Binomial

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



Expand/Multiply
(use the dimensions to find the area)

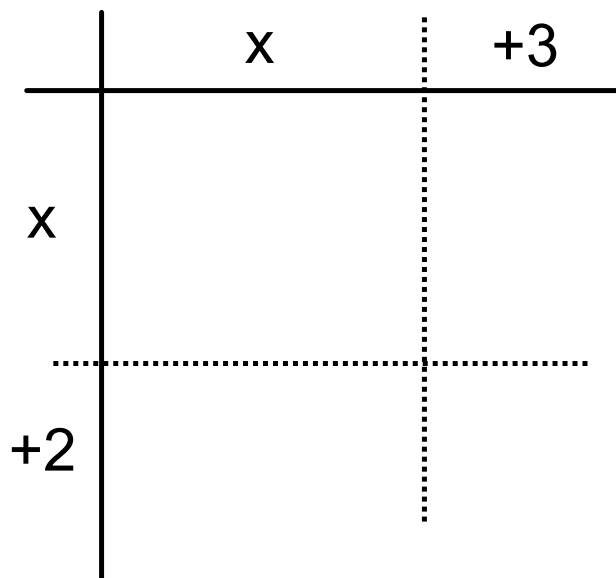
$(x - 3)(x + 2)$



Expand/Multiply $(x - 1)(2x + 3)$
 (use the dimensions to find the area)

Short Cut - First Outside Inside Last (FOIL)

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



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

Expand the following, try using multiple strategies:

(a) $(x - 1)(x - 6)$

(b) $(x + 5)(2x + 9)$

(c) $(2x - 3)(4x - 5)$

Expand the following, try using multiple strategies:

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

Expand the following, try using multiple strategies:

$$(x^2 + 6x + 1)(x^2 - 5x - 3)$$