

Name _____

Objective: I will be able to use the distributive Property

Date: 9-12-16

Homework: yes!!

Vocabulary


Distributive Property: X'ing everything on the outside by everything on the inside

Constant Term: A number without a variable

Rules for the Distributive Property

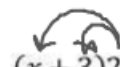
The product of a and $(b+c)$

$$a(b+c) = ab + ac$$


$$2(x+3) =$$

$$2x + 6$$

$$(b+c)a = ba + ca$$


$$(x+3)2 =$$

$$2x + 6$$

The product of a and $(b - c)$:

$$a(b - c) = ab - ac$$

$$(b - c)a = ba - ca$$

$$2(x - 3) =$$

$$2x - 6$$

$$(x - 3)2 =$$

$$2x - 6$$

What if....

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

$$-2x - 6$$

$$-2(x - 3) \text{ OR } -2(x + -3)$$

$$-2x - -6$$

$$\boxed{-2x + 6} \quad \boxed{-2x + 6}$$

Examples:

$7(x + 3)$ $7x + 21$	$(y + 6)(8)$ $8y + 48$
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$8(x - 3)$ $8x - 24$	$* \quad -2y(3y + 8) \quad y \cdot y = y^2$ $-6y^2 - 16y$
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$-3(4z - 5)$ $-3(4z + -5)$ $\boxed{-12z + 15}$	$-(7 - 3m)$ $-1(\overbrace{7 - 3m}^{\Delta})$ $-7 - -3m$ $\boxed{-7 + 3m}$
$\frac{1}{3} \left(\frac{9m + 12}{1} \right)$ $\frac{1}{3} \cdot \frac{9m}{1} + \frac{1}{3} \cdot \frac{12}{1}$ $\frac{9m}{3} + \frac{12}{3}$ $3m + 4$	$\overbrace{(-2p + 1)(-3p)}^{\Delta}$ $6p^2 + -3p$

$$1) \quad \underbrace{2(x+6)} + \underbrace{3(x+4)}$$

$$2x + 12 + 3x + 12$$

$$2x + 3x + 12 + 12$$

$$5x + 24$$

$$2) \quad \underbrace{5(x+4)} - 2$$

$$5x + \underbrace{20} - 2$$

$$5x + 18$$