

CH 7-2  
Simplifying +  
Solving Equations

SWBAT: solve 2 step  
Equations by combining  
Like terms + using the  
distributive property.

$$3(2x + 8)$$

Factor                  Terms

Multiply the factor  
into the terms.

$$3(2x + 8)$$
$$6x + 24$$

## Combine Like Terms

$$\underline{2x} + y + \underline{x}$$

$$2x + x + y$$

$$3x + y$$

## To Solve a Multiple Step EQUATION

M  
+  
#  
o  
D

- 1.) Remove Parenthesis using the Distributive Property
- 2.) Combine Like terms
- 3.) Undo Addition or SUBTRACTION
- 4.) Undo Multiplication or Division.

Dist Prop  $2(x+7) - 4x = 8$

Like Terms  $2x + 14 - 4x = 8$

$$2x - 4x + 14 = 8$$

$$-2x + 14 = 8$$

$$-2x + 14 - 14 = 8 - 14$$

$$\frac{-2x}{-2} = \frac{-6}{-2}$$

$$x = 3$$

Double Check

$$2(x+7) - 4x = 8$$

$$2(3+7) - 4 \cdot 3 = 8$$

$$2(10) - 12 = 8$$

$$\checkmark 20 - 12 = 8$$

$$3(n-2) = 36$$

$$3n - 6 = 36$$

$$3n - 6 + 6 = 36 + 6$$

$$\frac{3n}{3} = \frac{42}{3}$$

$$n = 14$$

$$14(2x-1)=56$$

$$28x-14=56$$

$$28x-14+14=56+14$$

$$\frac{28x}{28} = \frac{70}{28}$$

$$x = 2.5$$

$$14(2 \cdot 2.5 - 1) = 56$$

$$(5 - 1)$$

$$14 \times 4 = 56$$