



## **Objective:**

-Solve multi-variable equations for a given variable

Still in “Foundations” section

# Introduction Worksheet



## Solve for x (get x alone):

1.  $x - 7 = 3y$   
 $+7 \quad +7$

$$\underline{x = 3y + 7}$$

2.  $10y = 5x + 25$

$$\frac{10y - 25 = 5x}{5}$$



$$\underline{2y - 5 = x}$$

3.  $2y = -8 + 3x$

# Solve for y (get y alone):

1.  $x - 7 = 3y$

$$3y = x - 7$$
$$y = \frac{x - 7}{3}$$

$$y = \frac{1}{3}x - \frac{7}{3}$$

2.  $10y = 5x + 25$

$$\frac{10y = 5x + 25}{10}$$

$$y = \frac{1}{2}x + \frac{5}{2}$$

3.  $2y = -8 + 3x$

$$\frac{2y = -8 + 3x}{2}$$

$$y = -4 + \frac{3}{2}x$$

Are we ready for 2-step ones???



1. **Solve for y:  $2y + 8 = 14x$**
2. **Solve for y:  $3x + 4y = 12$**
3. **Solve for a:  $24 = -2a + 4b$**
4. **Solve for ☺:  $4☺ - 7 = 12☹$**

# Multi-Step



1. ~~Solve for a:  $24 = -2a + 8a + 4b$~~

1. Solve for 😊:  $\frac{3😊 - 3}{2} = 6☹$

# Temperature Conversions

- You convert from **Celsius** to **Fahrenheit** using the formula

$$F = \frac{9}{5}C + 32$$

Solve for C

- How do you convert from Fahrenheit to Celsius?

$$\frac{5}{9}(F - 32) = \frac{5}{9}C$$

$$\frac{5}{9}(F - 32) = C$$

$$B + 0 = L(U + S)$$

Solve for S

$$\frac{B+0}{L} = U + S$$

$$\frac{B+0}{L} - S = U$$



# Homework



## WORKSHEET