

Name: \_\_\_\_\_

**Lesson 6.3 – Arranging Equations**Standard Form  $ax + by = c$ Slope-Intercept Form  $y = mx + b$ 

**Example:** Change the following linear equation into Slope-Intercept Form. Then find the slope and y-intercept:

$$8x + 2y = 4$$

$$3x - 4y + 2 = 0$$

**Assignment:**

Change the following linear equations into Slope-Intercept Form. Then find the slope and y-intercept:

$$12x + 3y = 6$$

$$-5x - y + 3 = 0$$

$$-3x + 9y = -6$$

BONUS

$$0.9x - 0.3y = 1.2$$

## Arranging Equations

Standard Form       $ax + by = c$

Slope-Intercept Form       $y = mx + b$

**Example:** Change the following linear equation into Standard Form. Then find the x and y intercepts:

$$y = 2x + 4$$

$$y = -\frac{3}{4}x + 5$$

**Assignment:**

Change the following linear equation into Standard Form. Then find the x and y intercepts:

$y = -3x + 1$	$y = \frac{1}{2}x - 5$
$y = -\frac{5}{3}x + 7$	BONUS (no decimals in answer please) $y = 0.25x + 1.15$

**Word Problems:**

*Translating an English sentence into a Linear Equation...*

STEP #1: Define the \_\_\_\_\_

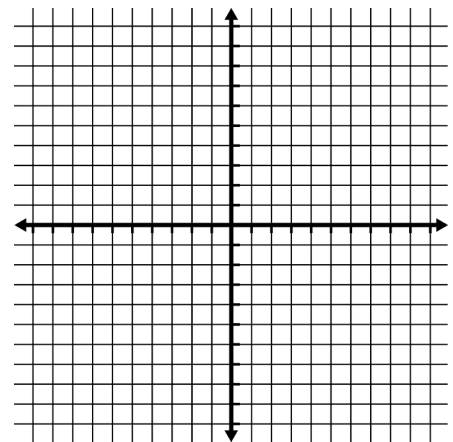
STEP #2: Start with what it \_\_\_\_\_

STEP #3: Write the \_\_\_\_\_

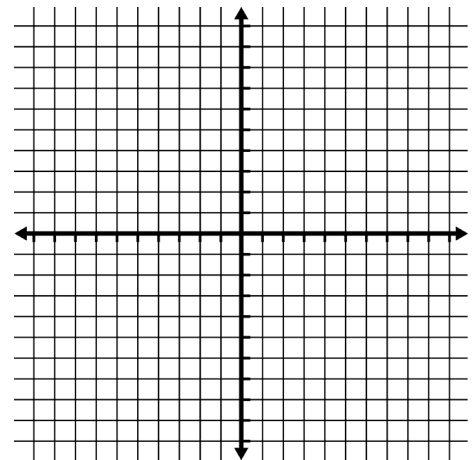
STEP #4: Draw the \_\_\_\_\_

**Example:**

A bag of apples cost \$3 and a bunch of bananas cost \$2. How many can I buy with \$12?

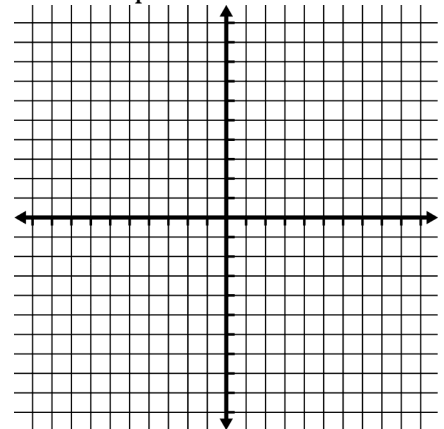


The difference between double a number and triple another number is six.

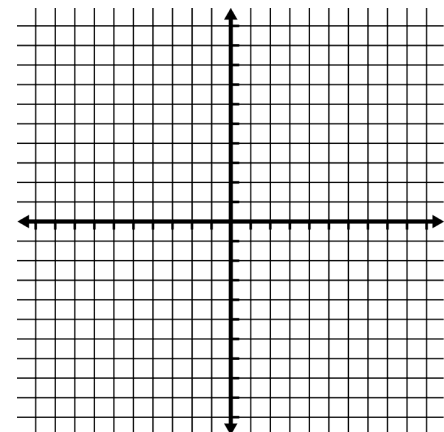


**Assignment:**

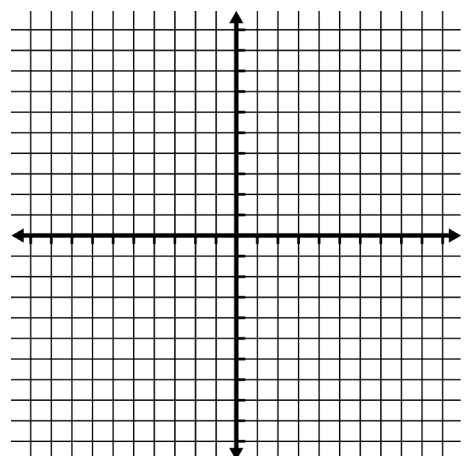
Wins are worth 2 points and ties are worth 1 point. My team has 7 points so far.



The difference between half of one number and triple another number is three.



You have pennies and nickels worth a total of ten cents.



**Practice Quiz:**

Change the following linear equation into Standard Form. Then find the x and y intercepts:

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

Change the following linear equation into Slope Intercept Form. Then find the slope and the y-intercept:

$$2x - 3y = 9$$

**Write a linear equation and draw the corresponding graph:**

Wins are worth 3 points and ties are worth 1 point. My team has 10 points so far.

