

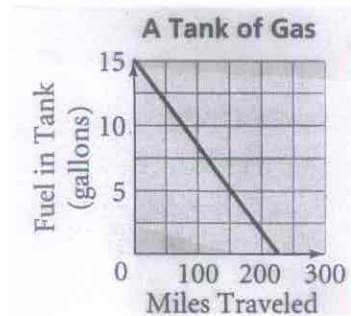
**Unit Test Review Problems**  
**Slope****Use the following given information to determine the slope.**1.)  $(9, -2), (3, 4)$ 2.)  $(-4, -5), (-9, 1)$ 

3.) Cost for Renting a Cabin in Garmisch

Number of Days	Rental Fee
5	\$595
7	\$833

Find the rate (or slope) for cost per day (or \$/day).

4.)



5.) Find the rate (or slope).

A baby is 18 inches long at birth and 27 inches long at ten months.

## Rearranging Linear Equations to find Slope and y-intercept

Rearrange the following equations and find the slope and y-intercept.

1.)

$$3y + 4x = 8$$

Slope =

y - intercept =

2.)

$$5x + y = 3$$

Slope =

y - intercept =

3.)

$$3y = x + 6$$

Slope =

y - intercept =

4.)

$$7x - 2y = 12$$

Slope =

y - intercept =

## Writing Linear Equations

Use the following given information to write linear equations in the  $y = a + bx$  form.

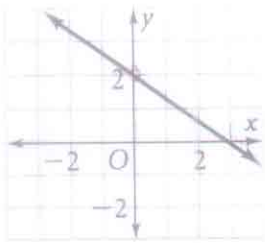
1.)  $(2, 0)$ ,  $b = -1$

2.)  $(-2, 1)$ ,  $b = -\frac{5}{2}$

3.)  $(0, 2)$ ,  $(4, -1)$

4.)  $(4, -1)$ ,  $(5, -7)$

5.) Write an equation for the line on the graph:



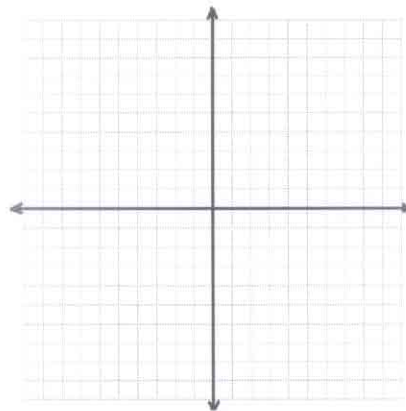
### Graphing Linear Equations

Graph each linear equation:

1.)  $y = -2x + 8$

Slope =

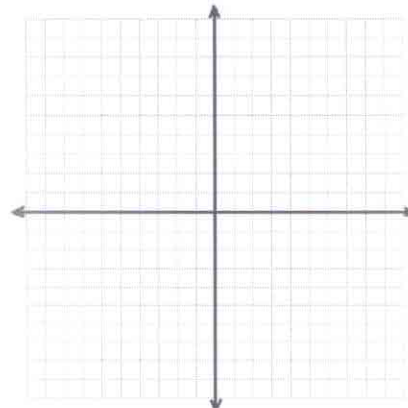
y - intercept =



2.)  $y = -3x + 4y = 12$

Slope =

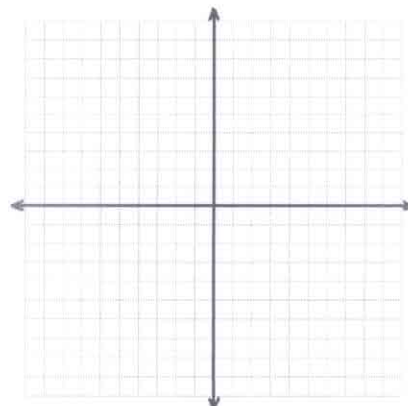
y - intercept =



3.)  $-14x + 7y = -42$

Slope =

Y - intercept =



## Graphing Inequalities

Graph the following inequalities:

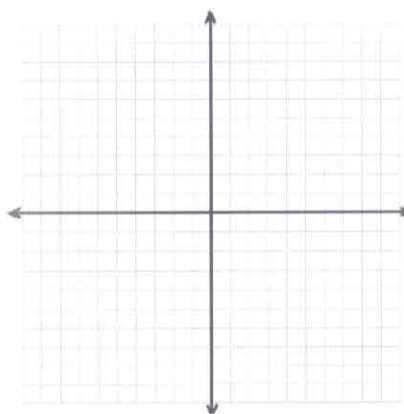
1.)  $y < 2 - \frac{2}{3}x$

Slope =

y - intercept =

Solid or Dashed Line?

Test a point on the graph to see if it keeps the inequality true. (An easy point to try is point  $(0, 0)$ , as long as it does not fall on the line already.)



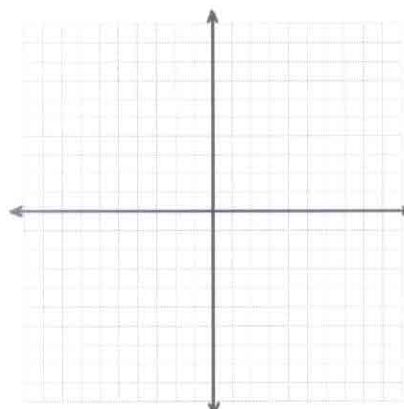
2.)  $4x - 4y \leq 8$

Slope =

y - intercept =

Solid or Dashed Line?

Test a point on the graph to see if it keeps the inequality true. (An easy point to try is point  $(0, 0)$ , as long as it does not fall on the line already.)



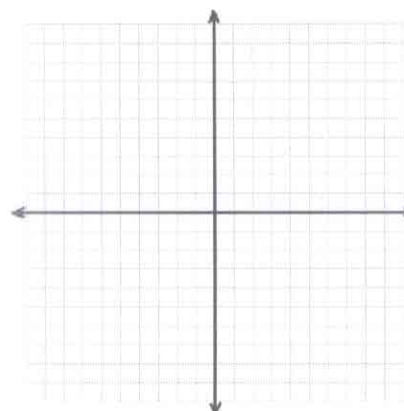
3.)  $4y \geq 6x + 2$

Slope =

y - intercept =

Solid or Dashed Line?

Test a point on the graph to see if it keeps the inequality true. (An easy point to try is point  $(0, 0)$ , as long as it does not fall on the line already.)



## Solving Systems

**Find the solution to the system.**

System #1:  
 $y = -2x + 3$   
 $y = x - 6$

Does this equation need to be rearranged in order to be in the  $y = a + bx$  form?  
 $y = -2x + 3$

Slope: \_\_\_\_\_

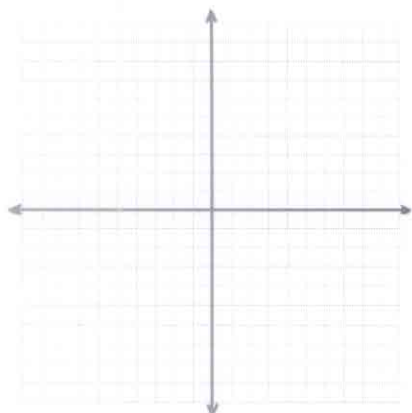
y-int.: \_\_\_\_\_

Does this equation need to be rearranged in order to be in the  $y = a + bx$  form?  
 $y = x - 6$

Slope: \_\_\_\_\_

y-int.: \_\_\_\_\_

Graph:



Answer: \_\_\_\_\_  
 (Make sure it's written as a coordinate, "I.M.S.", or "no solution")

**Plug in your answer (x, y) into both original equations to CHECK for correctness.**

$y = -2x + 3$

$y = x - 6$

System #2:  
 $y = 8x$   
 $-2x + y = 6$

Does this equation need to be rearranged in order to be in the  $y = a + bx$  form?  
 $y = 8x$

Slope: \_\_\_\_\_

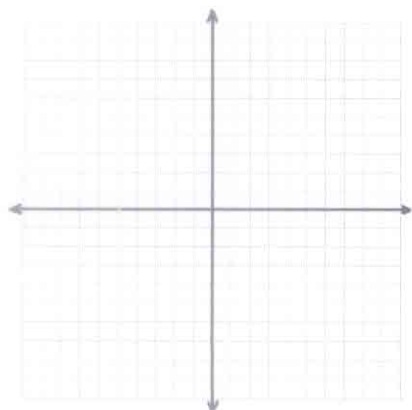
y-int.: \_\_\_\_\_

Does this equation need to be rearranged in order to be in the  $y = a + bx$  form?  
 $-2x + y = 6$

Slope: \_\_\_\_\_

y-int.: \_\_\_\_\_

Graph:



Answer: \_\_\_\_\_  
 (Make sure it's written as a coordinate, "I.M.S.", or "no solution")

**Plug in your answer (x, y) into both original equations to CHECK for correctness.**

$y = 8x$

$-2x + y = 6$