

Algebra 2

In problems 1-3, perform the following with each equation.

A. Use a t-table to find four solutions. Find and label the x and y-intercepts.

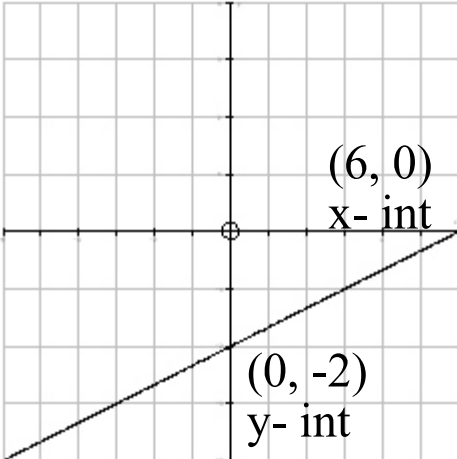
B. Graph the equation, and give the slope of the graph.

1)  $3x = 9y + 18$

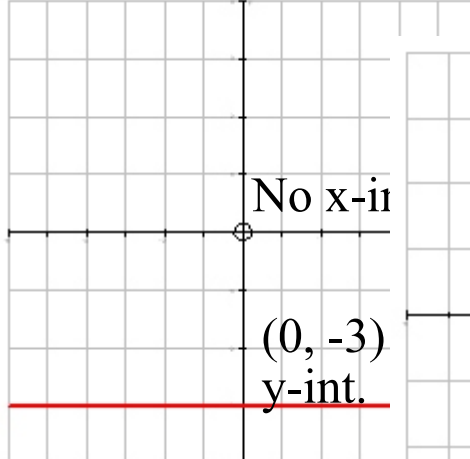
2)  $4y = -12$

3)  $-5y + 2x = 4y + 10 - 9y$

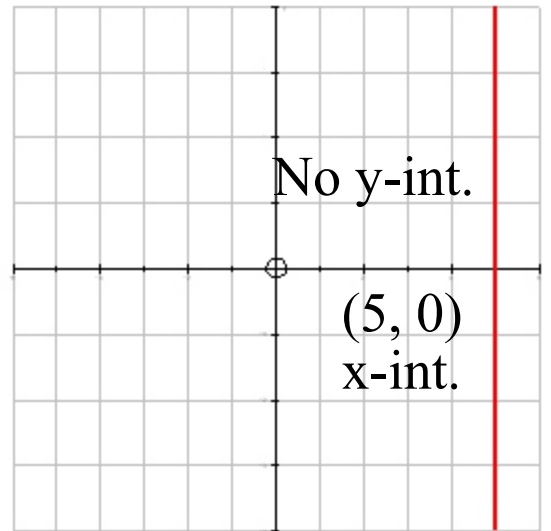
X	Y	$m = 1/3$
6	0	x-int.
0	-2	y-int.



X	Y	$m = 0$
0	-3	y-int.



X	Y	$m = 0$
5	0	x-int.
5	1	
5	2	



Put the following equations in slope-intercept form. Graph them with each graph. (Use the back of the worksheet, if necessary.)

4)  $2x = -5y + 10$

5)  $3x - 4y = 24$

$$\frac{-10}{-5} - \frac{-10}{-5}$$

$$\frac{2x - 10}{-5} = \frac{-5y}{-5}$$

$$\frac{-3x}{-4} = \frac{-3x + 24}{-4}$$

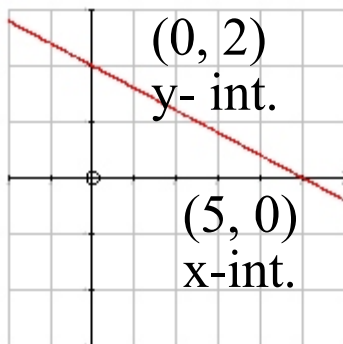
$$-2/5x + 2 = y$$

$$y = -2/5x + 2$$

$$m = -2/5$$

$$\text{x-int.} = (5, 0)$$

$$\text{y-int.} = (0, 2)$$

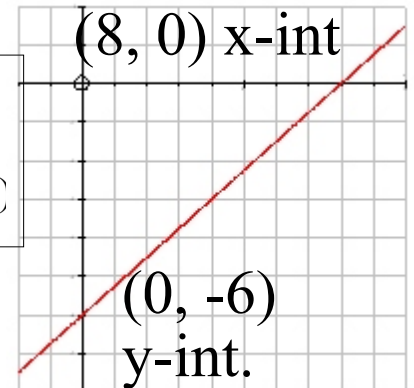


$$y = 3/4x - 6$$

$$m = 3/4$$

$$\text{x-int.} = (8, 0)$$

$$\text{y-int.} = (0, -6)$$



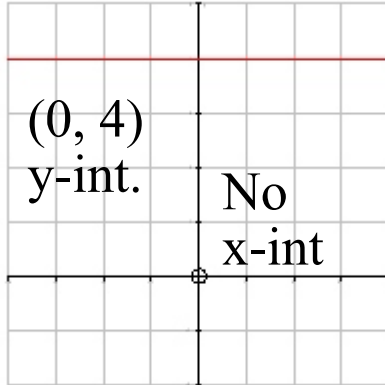
6)  $10y = 3y + 28$

$y = 4$

$m = 0$

No x-int.

y-int. - (0, 4)



7)  $5x + 8y = 20$

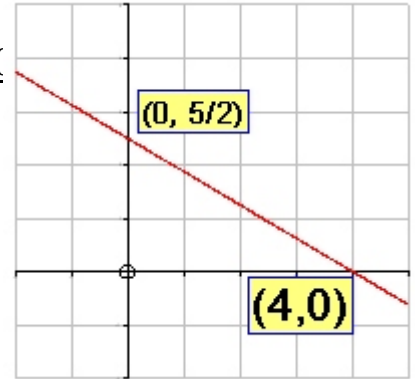
$$\frac{-5x}{8} = \frac{-5x + 20}{8}$$

$y = -5/8x + 5/2$

$m = -5/8$

x-int. - (4,0)

y-int. - (0, 5/2)



8) What does it mean for value(s) to satisfy an equation?

**When substituted for the variables in the equation, the equation makes a true statement.**

9) What is a solution of an equation?

**A set of values that satisfies the equation.**

10) What is the graph of an equation?

**The set of points whose coordinates satisfy the equation.**

11) What is the x-intercept? What do we always know about it?

**The point where the graph crosses the x-axis. The Y coordinate is always zero.**

12) What is the y-intercept? What do we always know about it?

**The point where the graph crosses the y-axis. The X coordinate is always zero.**

13) What is slope?

**A measure of steepness. Rise over run.**