

Linear Equations 2.2  
Algebra 2

(KEY)

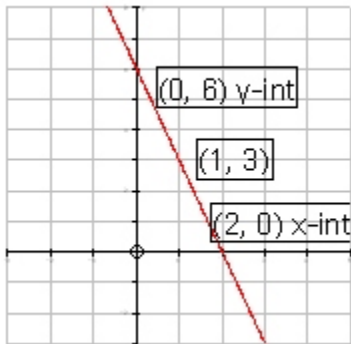
In problems 1-2, perform the following with each equation.

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.

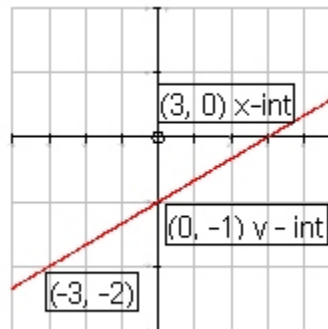
1)  $6x + 2y = 12$

2)  $x - 3y = 3$



X	Y
0	6
1	3
2	0
3	-3

Y-int  
X-int  
 $m = -3$



X	Y
-3	-2
0	-1
3	0
6	1

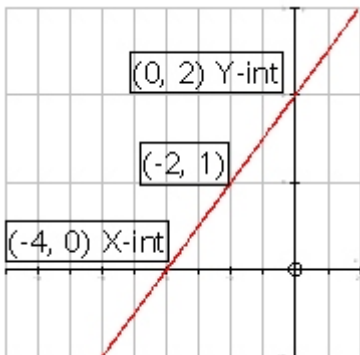
y-int  
x-int  
 $m = 1/3$

Put the following equations in slope-intercept form. Graph them with their x and y-intercepts. State the slope of each graph.

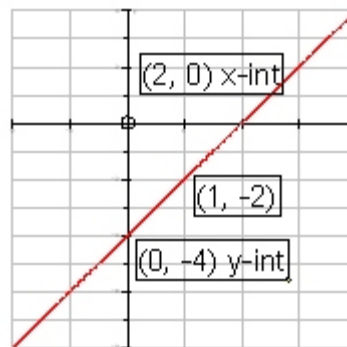
3)  $-2x + 4y = 8$      $4y = 2x + 8$

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

4)  $2x - y = 4$      $y = 2x - 4$



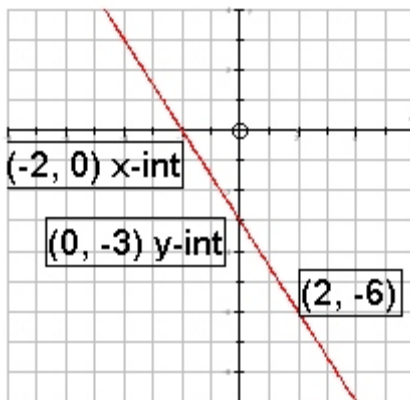
$m = \frac{1}{2}$



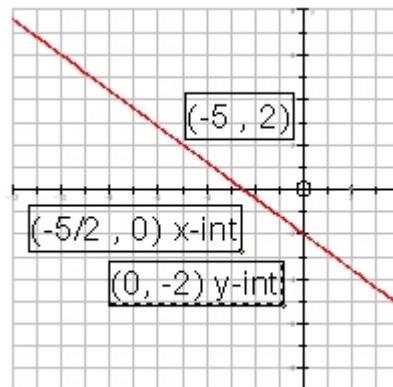
$m = 2$

5)  $-3x - 2y = 6$      $2y = -3x - 6$      $y = -\frac{3}{2}x - 3$

6)  $4x + 5y = -10$      $5y = -4x - 10$      $y = -\frac{4}{5}x - 2$



$m = -3/2$



$m = -4/5$

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

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

8) What is a solution of an equation?

*A set of values that satisfies the equation.*

9) What is the graph of an equation?

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

10) 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.*

11) 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.*

12) What is slope?

*A measure of steepness. Rise over run.*