

## Graphing ~ Take 2

Solve each of the following equations for  $y$ .

Examples...

1.  $12x + 3y = 6$

$$3y = -12x + 6$$

$$y = -4x + 2$$

$$m = \frac{\downarrow 4}{\rightarrow 1}$$

$$b = (0, 2)$$

2.  $-2x - 4y = 20$

$$-4y = 2x + 20$$

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

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

$$b = (0, -5)$$

Now you try...

3.  $-10x + 5y = 25$

$$5y = 10x + 25$$

$$y = 2x + 5$$

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

$$b = (0, 5)$$

4.  $-12x + 6y = 18$

$$6y = 12x + 18$$

$$y = 2x + 3$$

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

$$b = (0, 3)$$

5.  $14x - 2y = 18$

$$-2y = -14x + 18$$

$$y = 7x - 9$$

$$m = \frac{\uparrow 7}{\rightarrow 1}$$

$$b = (0, -9)$$

6.  $2x - 3y = 12$

$$-3y = -2x + 12$$

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

$$m = \frac{\uparrow 2}{\rightarrow 3}$$

$$b = (0, -4)$$

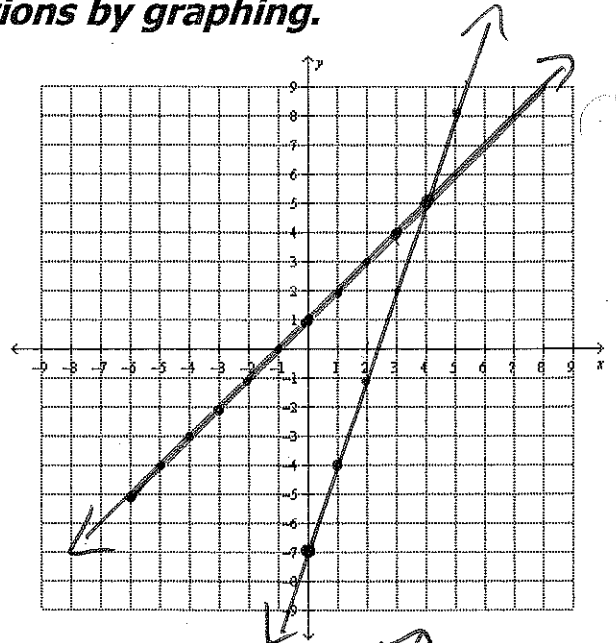
Solve each of the following systems of equations by graphing.

7.  $-4x + 4y = 4$   
 $-6x + 2y = -14$

$$\begin{aligned} -4x + 4y &= 4 \\ 4y &= 4x + 4 \\ y &= x + 1 \\ m &= 1 \\ b &= (0, 1) \end{aligned}$$

$$\begin{aligned} -6x + 2y &= -14 \\ 2y &= 6x - 14 \\ y &= 3x - 7 \\ m &= 3 \\ b &= (0, -7) \end{aligned}$$

Answer (4, 5)

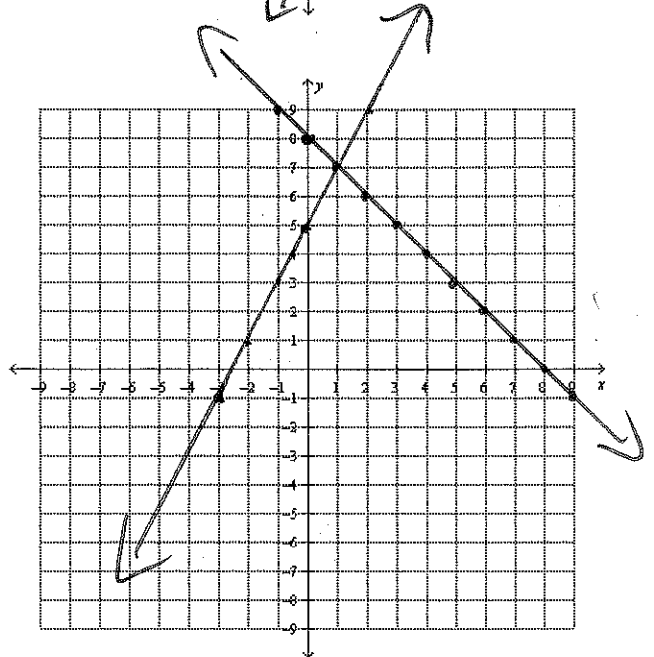


8.  $y = -x + 8$   
 $-6x + 3y = 15$

$$\begin{aligned} y &= -x + 8 \\ m &= -1 \\ b &= (0, 8) \end{aligned}$$

$$\begin{aligned} -6x + 3y &= 15 \\ 3y &= 6x + 15 \\ y &= 2x + 5 \\ m &= 2 \\ b &= (0, 5) \end{aligned}$$

Answer (1, 7)

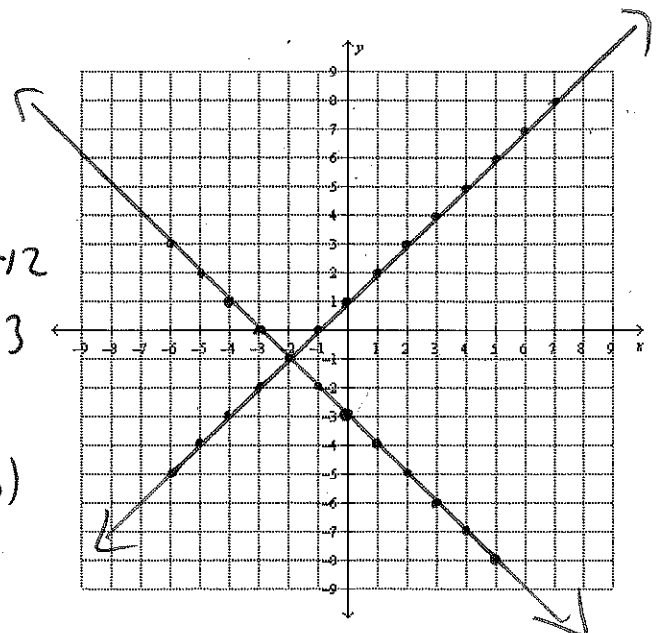


9.  $-6x + 6y = 6$   
 $4x + 4y = -12$

$$\begin{aligned} -6x + 6y &= 6 \\ 6y &= 6x + 6 \\ y &= x + 1 \\ m &= 1 \\ b &= (0, 1) \end{aligned}$$

$$\begin{aligned} 4x + 4y &= -12 \\ 4y &= -4x - 12 \\ y &= -x - 3 \\ m &= -1 \\ b &= (0, -3) \end{aligned}$$

Answer (-2, -1)



10.  $y = x + 5$   
 $8x + 4y = 32$

Answer (1, 6)

$y = x + 5$

$m = 1$

$b = (0, 5)$

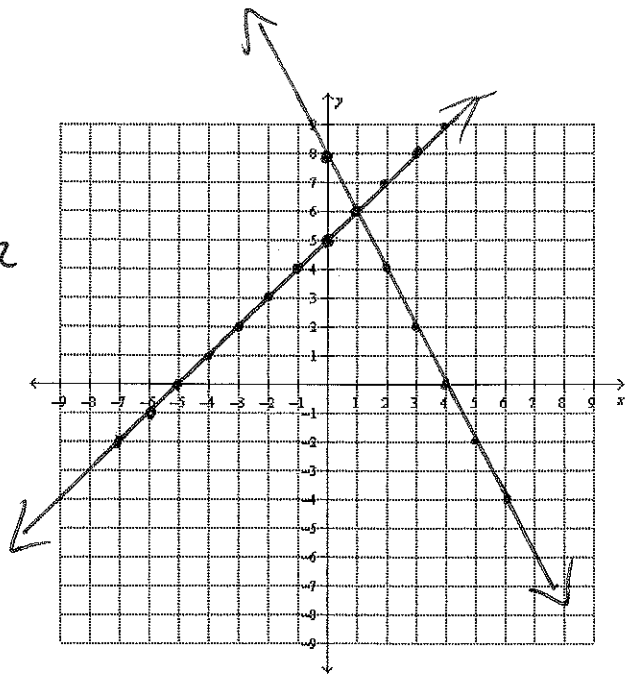
$8x + 4y = 32$

$4y = -8x + 32$

$y = -2x + 8$

$m = -2$

$b = (0, 8)$



11.  $-x + y = -4$   
 $y = 3x$

Answer (-2, -6)

$-x + y = -4$

$y = x - 4$

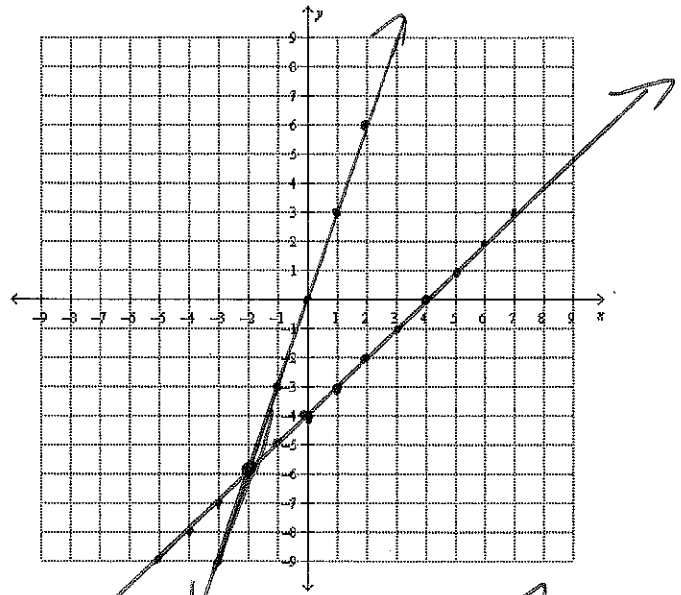
$m = 1$

$b = (0, -4)$

$y = 3x$

$m = 3$

$b = (0, 0)$



12.  $-6x + 3y = -6$   
 $y = 6$

Answer (4, 6)

$-6x + 3y = -6$

$3y = 6x - 6$

$y = 2x - 2$

$m = 2$

$b = (0, -2)$

$y = 6$

$m = \text{zero}$

$b = (0, 6)$

