

ALL PROBLEMS CAN BE COMPLETED ON THIS WORKSHEET

WS 29.1 – Graphing Equations by the Slope-Intercept Method 1

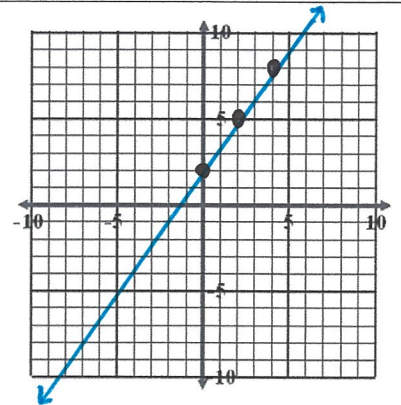
Graph each equation by finding the slope and y-intercept. Remember to solve for y!

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

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

$$M = \frac{3}{2} \leftarrow \begin{array}{l} \text{up 3} \\ \text{right 2} \end{array}$$

$$b = 2 \leftarrow \begin{array}{l} \text{start} \\ \text{here on} \\ \text{y-axis} \end{array}$$



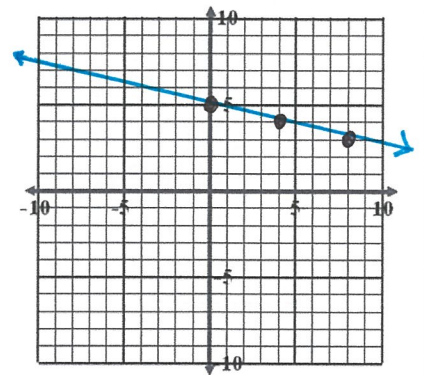
2.  $x + 4y = 20$   
 $\frac{-1x}{4} \quad \frac{-1x}{4}$

$$\frac{4y}{4} = \frac{-1x}{4} + \frac{20}{4}$$

$$y = -\frac{1}{4}x + 5$$

$$M = -\frac{1}{4} \leftarrow \begin{array}{l} \text{down 1} \\ \text{right 4} \end{array}$$

$$b = 5 \leftarrow \begin{array}{l} \text{start} \\ \text{here on} \\ \text{y-axis} \end{array}$$

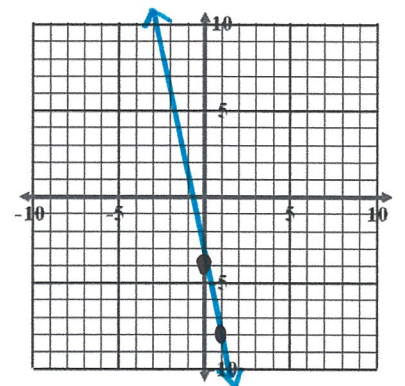


3.  $\frac{-y}{-1} = \frac{4x}{-1} + \frac{4}{-1}$

$$y = -4x - 4$$

$$M = -\frac{4}{1} \leftarrow \begin{array}{l} \text{down 4} \\ \text{right 1} \end{array}$$

$$b = -4 \leftarrow \begin{array}{l} \text{start} \\ \text{here on} \\ \text{y-axis} \end{array}$$



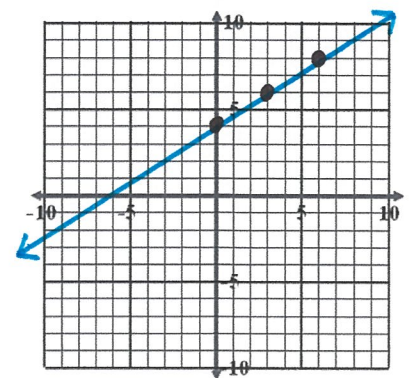
4.  $3y - 12 = 2x$   
 $\frac{+12}{3} \quad \frac{+12}{3}$

$$\frac{3y}{3} = \frac{2x}{3} + \frac{12}{3}$$

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

$$M = \frac{2}{3} \leftarrow \begin{array}{l} \text{up 2} \\ \text{right 3} \end{array}$$

$$b = 4 \leftarrow \begin{array}{l} \text{start} \\ \text{here on} \\ \text{y-axis} \end{array}$$



5.  $5y - x = -30$

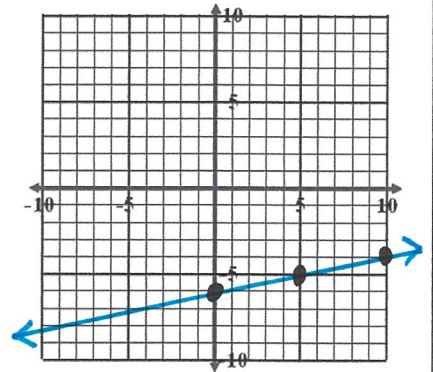
$+1x \quad +1x$

$$\frac{5y}{5} = \frac{1x}{5} - \frac{30}{5}$$

$$y = \frac{1}{5}x - 6$$

$m = \frac{1}{5}$  ← up 1  
← right 5

$b = -6$  ← start here on y-axis



6.  $-2x + 5y = -10$

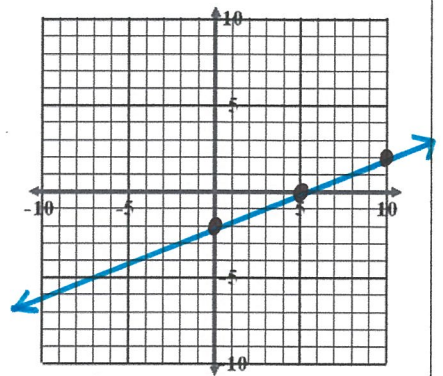
$+2x \quad +2x$

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

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

$m = \frac{2}{5}$  ← up 2  
← right 5

$b = -2$  ← start here on y-axis

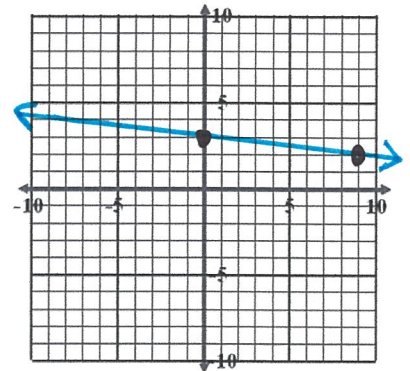


7.  $y = -\frac{1}{9}x + 3$

Already in slope-intercept form

$m = -\frac{1}{9}$  ← down 1  
← right 9

$b = 3$  ← start here on y-axis



8.  $y = -4$

horizontal line with all points having a y-coordinate of -4.

