

5.0 - Graphing Review

- 1) **Slope-intercept form** is an equation written in the form $y = mx + b$, where m represents the line's slope and b represents the line's y-intercept.

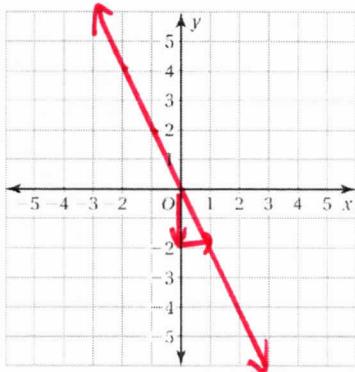
Solve each equation for y . Then determine the slope and y-intercept of the equation.

2) $\frac{2y = -4x + 2}{\cancel{2}} \quad y = -2x + 1$
 $m = \underline{-2} \quad b = \underline{(0, 1)}$

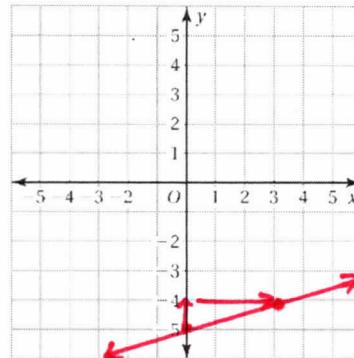
3) $x - 3y = 9$
 $\begin{matrix} -x & -x \\ \cancel{-3y} & \cancel{-3y} \\ -3 & -9 \end{matrix} \quad y = \frac{1}{3}x - 3$
 $m = \underline{\frac{1}{3}} \quad b = \underline{(0, -3)}$

Graph each line using the given information about the slope and y-intercept.

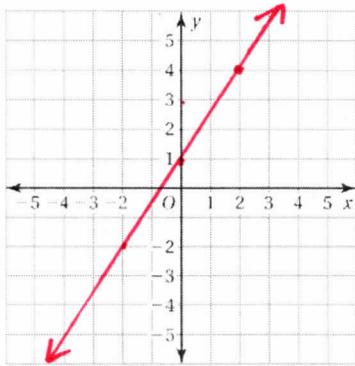
4) $m = -2$ and $b = 0$



5) $m = \frac{1}{3}$ and $b = -5$

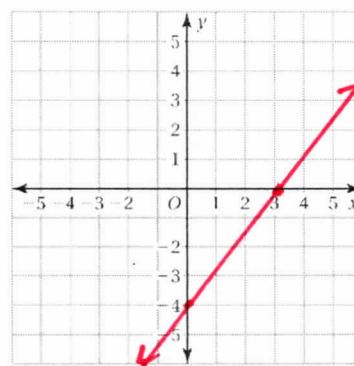


6) Change to slope intercept form and graph
 $3x - 2y = -2$



$$\begin{aligned} 3x - 2y &= -2 \\ -2y &= -3x - 2 \\ y &= \frac{3}{2}x + 1 \end{aligned}$$

7) Graph the equation using any method
 $-4x + 3y = -12$



$$\begin{aligned} -4x + 3y &= -12 \\ +4x &+4x \\ \hline 3y &= 4x - 12 \\ \frac{3y}{3} &= \frac{4x - 12}{3} \\ y &= \frac{4}{3}x - 4 \end{aligned}$$

Show whether the given ordered pair is a solution of the equation. *Show your work!*

8) $y = 3x + 4$; $(-1, 1)$

$$\begin{aligned} 1 &= 3(-1) + 4 \\ 1 &= -3 + 4 \\ 1 &= 1 \quad \checkmark \quad \text{Yes} \end{aligned}$$

9) $2x - 3y = 15$; $(0, 5)$

$$\begin{aligned} 2(0) - 3(5) &= 15 \\ 0 - 15 &= 15 \\ -15 &= 15 \quad \text{No} \end{aligned}$$