



Name: Key

Objective: Slope

1. Calculate the slope between the two points.

$(-5, 6)$ and $(-4, 3)$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{3 - 6}{-4 - (-5)} = \frac{-3}{1} = \boxed{-3} \text{ downward}$$

2. Calculate the missing coordinate

$(-10, 2)$ and $(x, -3)$ given a slope of $\frac{1}{4}$

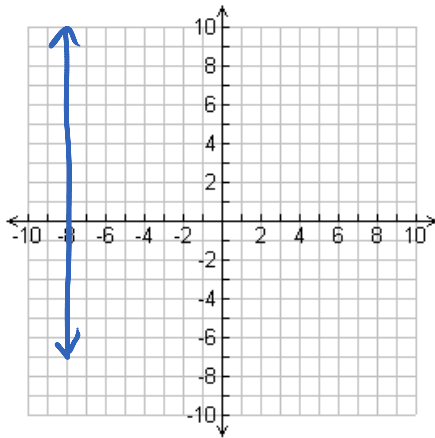
$$\frac{-3 - 2}{x - (-10)} = \frac{1}{4}$$

$$\frac{-5}{x + 10} = \frac{1}{4}$$

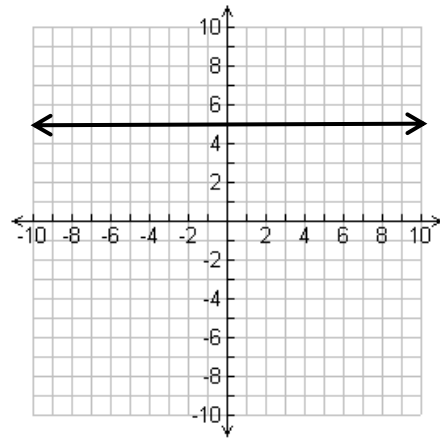
$$\begin{array}{r} -20 = x + 10 \\ -10 \quad -10 \\ \hline -30 = x \end{array}$$

Objective: Vertical and Horizontal Lines

3. Graph the line $x = -8$



4. What is the equation of the given line?



$\boxed{y = 5}$

Objective: Graphing with Intercepts

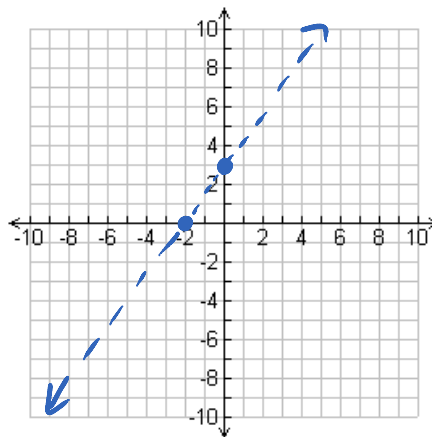
State the x- and y-intercepts and Graph.

5. $-6x + 4y = 12$

x-intercept: $(-2, 0)$

y-intercept: $(0, 3)$

$$\begin{array}{ll} 4y = 12 & -6x = 12 \\ y = 3 & x = -2 \end{array}$$



Objective: Graph Using Slope-Intercept Form:

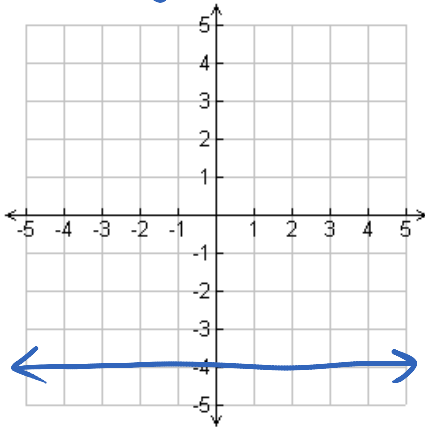
Identify the slope and y intercept of the following lines and then graph them.

6. $\frac{-4y}{-4} = \frac{16}{-4}$

$y = -4$

$m = \underline{0}$

$b = \underline{(0, -4)}$



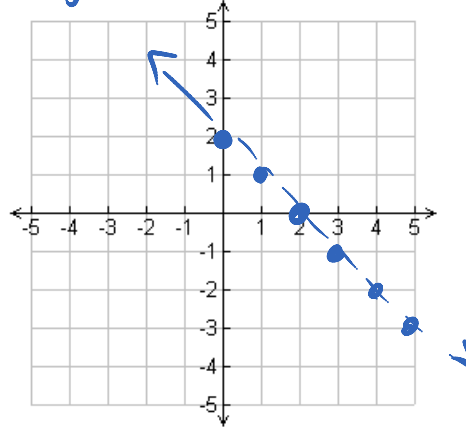
7. $5y + 5x = 10$

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

$y = -x + 2$

$m = \underline{-1}$

$b = \underline{(0, 2)}$



Objective: Parallel and Perpendicular Lines

Tell whether the following pairs of lines are parallel, perpendicular or neither.

8. Lines with slopes $m = 3$ and $m = 3$

parallel

9. Lines with slopes $m = -2$ and $m = \frac{1}{2}$

perpendicular

10. $y = 8x - 3$, $y = 8x - 3$
 $m = 8$ $m = 8$

parallel

11. $y = 5 - 2x$, $-6 + 2y = x$
 $m = -2$ $\frac{2y}{2} = \frac{x + 6}{2}$ $m = \frac{1}{2}$

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

Objective: Graphing lines with a restricted Domain/Range

6. $y = 4$ Domain of $x \leq -2$

