

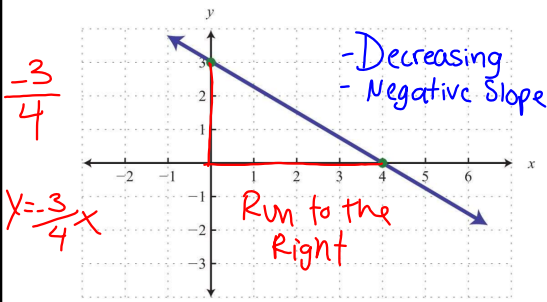
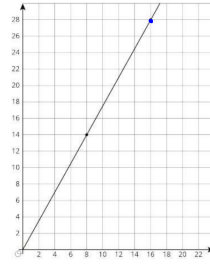
$$\frac{\text{Change in } Y}{\text{Change in } X} = \frac{\text{rise}}{\text{run}}$$

Let's Practice Finding Slope from a Graph

$$\frac{14}{8} = \frac{7}{4}$$

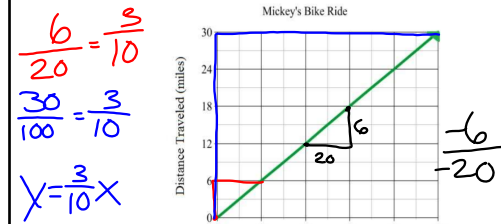
$$y = \frac{7}{4}x$$

Here is a graph that could represent a variety of different situations.



$$\frac{-3}{4}$$

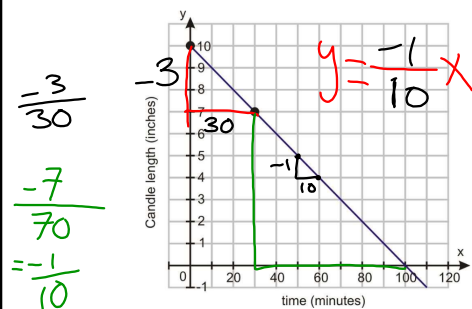
$$y = -\frac{3}{4}x$$



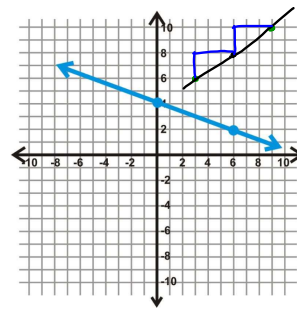
$$\frac{6}{20} = \frac{3}{10}$$

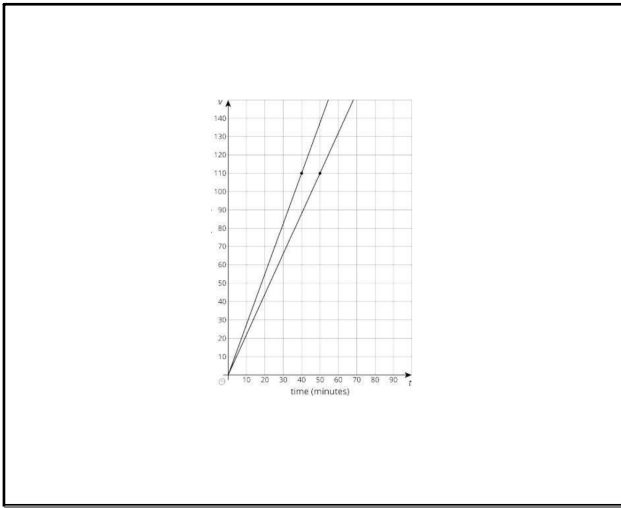
$$\frac{30}{100} = \frac{3}{10}$$

$$y = \frac{3}{10}x$$



$$\frac{-3}{30} = \frac{-1}{10}$$





What if I didn't give you the graph?

Change in Y $m = \frac{Y_2 - Y_1}{X_2 - X_1}$

Change in X $(3, 6) \text{ \& } (9, 10)$

(X, Y) $x_1 \ y_1 \ x_2 \ y_2$

$Y = mx + b$ $\frac{10 - 6}{9 - 3} = \frac{4}{6} = \frac{2}{3}$

$0 = M$

$\frac{Y_2 - Y_1}{X_2 - X_1}$ $\frac{0}{5}$

Undefined $\frac{14}{0}$

$(-2, 8) \text{ \& } (5, -11)$

$x_1 \ y_1 \ x_2 \ y_2$

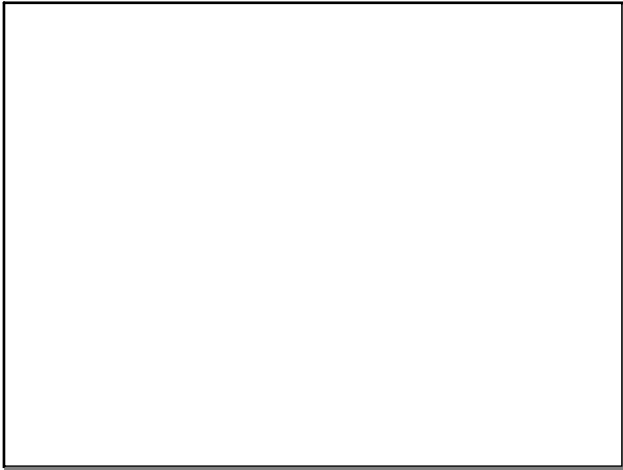
$\frac{-11 - 8}{5 - (-2)} = \frac{-19}{7}$

$(-9, -1) \text{ \& } (5.5, -5.5)$

$x_1 \ y_1 \ x_2 \ y_2$

$\frac{-5.5 - (-1)}{5.5 - (-9)} = \frac{-4.5}{14.5} = \frac{-3}{1}$

Let's go back and write equations for all of these lines!



Nov 9-9:56 AM