

Determine the Slope of a Line Given Points (coordinates) on the Line



Name _____

Date _____

Directions: Find the slope of the line given two points.

1.) (3,2) and (-5,2)

2.) (-3,1) and (2,-50)

Directions: Find the missing value.

Example: Find the value of y so that the line passing through the points $(-2,1)$ and $(4, y)$ has a slope of $\frac{2}{3}$.

Step1: Write out the slope formula $m = \frac{y_2 - y_1}{x_2 - x_1}$

Step2: Plug in given values into the formula: $\frac{2}{3} = \frac{y-1}{4-(-2)} \Rightarrow \frac{2}{3} = \frac{y-1}{6}$

Step3: Solve for y : $6 \cdot \frac{2}{3} = \frac{y-1}{6} \cdot 6 \Rightarrow 4 = y-1 \Rightarrow y = 5$

3.) Find the value of y so that the line passing through the points $(0,2)$ and $(1,y)$ has a slope of 2.

4.) Find the value of y so that the line passing through the points $(3,1)$ and $(6,y)$ has a slope of $\frac{-2}{3}$.

5.) Find the value of y so that the line passing through the points $(-2,y)$ and $(1,8)$ has a slope of 5.