Slope!

Types of Slope

Type	Picture	Equations Examples
	 * rises from left to right	$y = \frac{1}{2}x + 4$
	 * falls from left to right	$y = -5x + 1$
	* horizontal line	$y = 10$
	 * vertical line	$x = \frac{5}{4}$

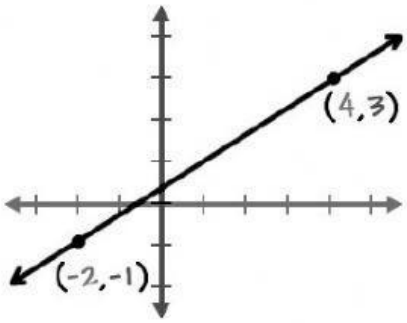
Finding Slope

$$\text{SLOPE} = \frac{RISE}{RUN} = \frac{y_2 - y_1}{x_2 - x_1}$$

Finding slope from a graph

1. Determine if the slope is positive or negative
2. Find two points on the line
3. Count how many spaces you go up (rise) and how many space you go right (run)
4. Substitute in the values: $m = \frac{RISE}{RUN}$

Example:



$m = \frac{RISE}{RUN}$

$m =$ ____

$m =$ ____

Finding slope given two points

1. Identify one set of points as (x_1, y_1) and (x_2, y_2)
2. Substitute the values into the slope formula:
$$m = \frac{y_2 - y_1}{x_2 - x_1}$$
3. Solve for m and simplify your fraction if necessary

Example:

(4,3) and $(-2, -1)$

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

$$m = \frac{\_}{\_} = \_\_\_\_ = \_\_\_\_$$