

Name: _____

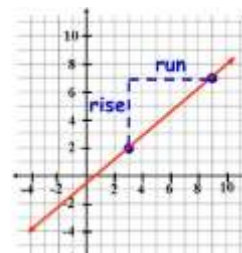
Date: / /

Lesson: Finding SLOPE between TWO POINTS

Period: _____

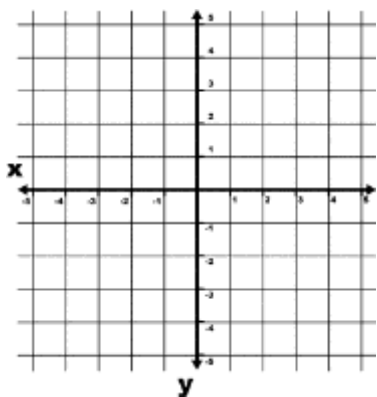
From our previous lesson we learned that the **slope** of a graph is the **ratio of the rise to the run** of any two points on a line. By using a graph we are able to do this very easily by simply counting boxes. Remember **going up is positive** and **going down is negative**. Going **right will be positive** and **left will be negative**.

$$\text{Slope} = \frac{\text{rise}}{\text{run}}$$

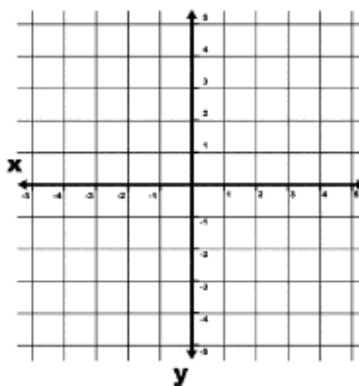


In the next examples **plot the two points** and **find the slope** between them.

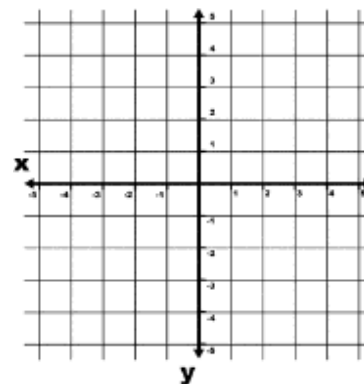
- a.** $(-2, 0)$ and $(0, 4)$



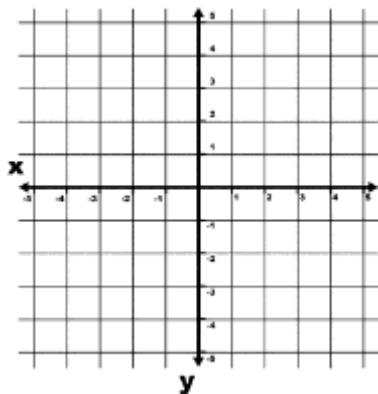
- b.** $(-3, 3)$ and $(0, -3)$



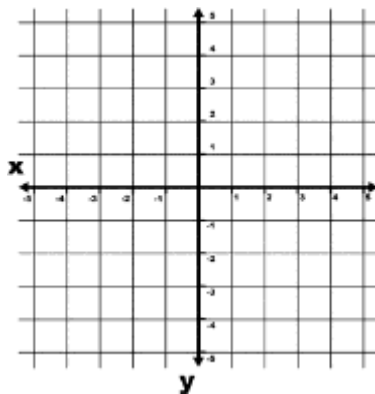
- c.** $(-1, 2)$ and $(3, 4)$



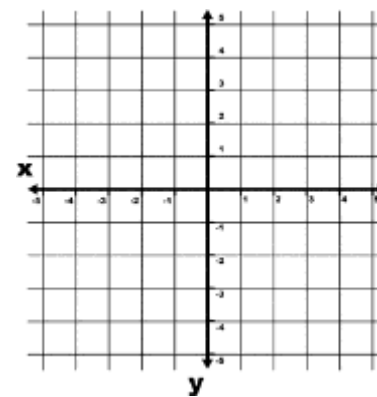
- d.** $(0, -2)$ and $(-2, 4)$



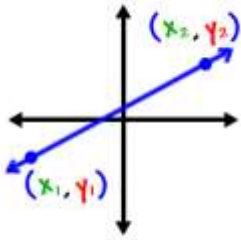
- e.** $(-5, 0)$ and $(-5, -2)$



- f.** $(-4, 3)$ and $(3, 4)$



When we find the **slope between two points** it is not necessary to use a graph every time we do a problem.



If you're given two points
 (x_1, y_1) and (x_2, y_2)

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

All we have to do is **subtract the y's** and **subtract the x's**. Just watch the order you subtract on the top **and** bottom. It has to be the same way each time.

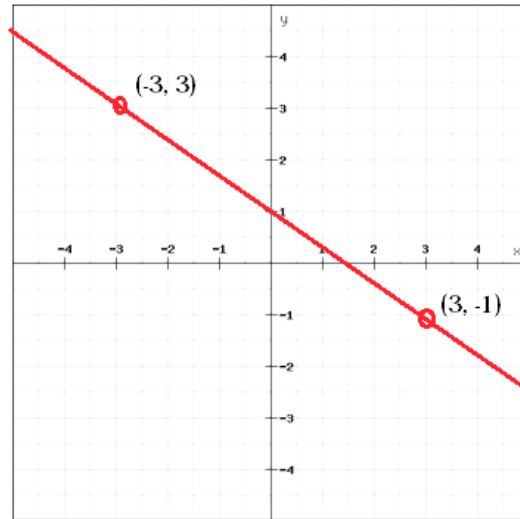
Example 2: Find the **slope** between the two points.

$$(15, -14), (17, 8)$$

Example 3: Find the **slope** between the two points.

$$(-17, -4), (-13, -2)$$

Example 1: Find the **slope** between the two points.



Practice: Find the **slope between the two points**. Leave any fractions you get in simplest form. Do not graph.

$(10, 17), (7, 8)$	$(-13, 1), (1, -6)$
$(4, -17), (-20, -1)$	$(-4, -4), (-1, 14)$
$(3, 7), (10, 0)$	$(-15, 9), (0, 3)$
$(-5, -6), (-1, -9)$	$(-12, 1), (4, 1)$