4.2

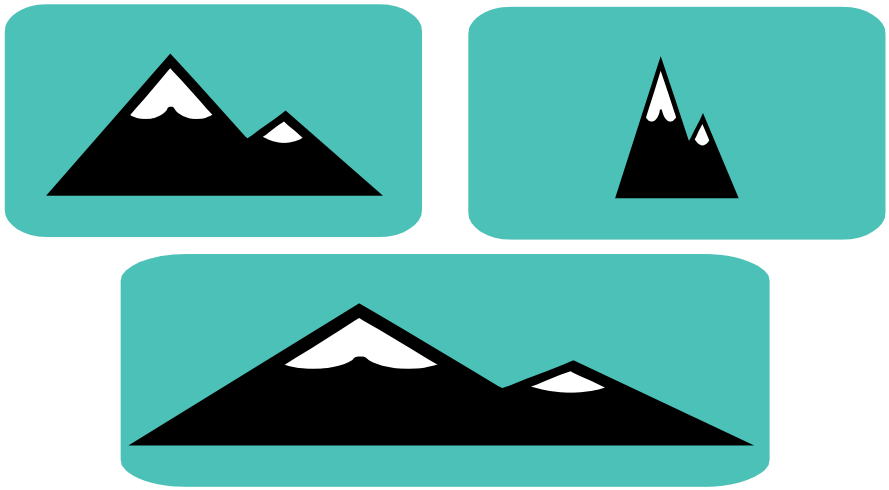
Slope of a Line

Today's Learning Goals:

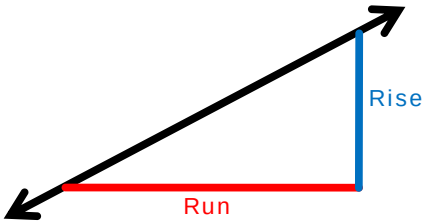
- Find slopes of lines by using two points.
- Find slopes of lines from tables.

SLOPE

This is the measure of steepness

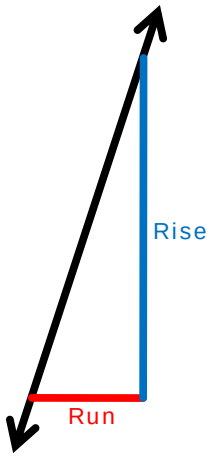


SLOPE OF A LINE



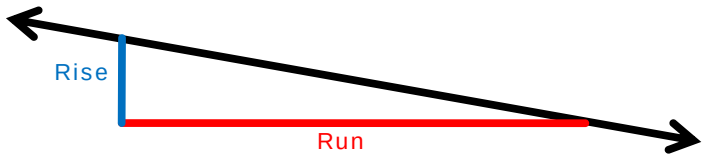
$$slope = \frac{rise}{run}$$

SLOPE OF A LINE



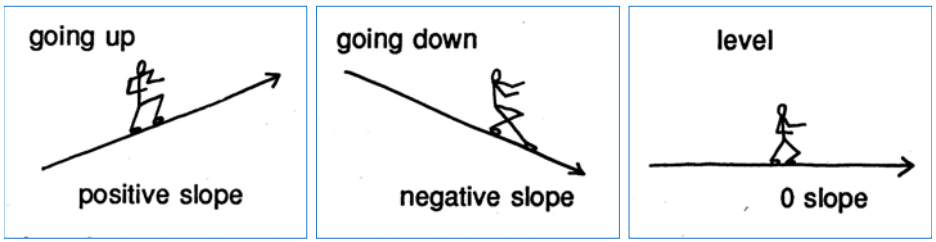
$$slope = \frac{rise}{run}$$

SLOPE OF A LINE

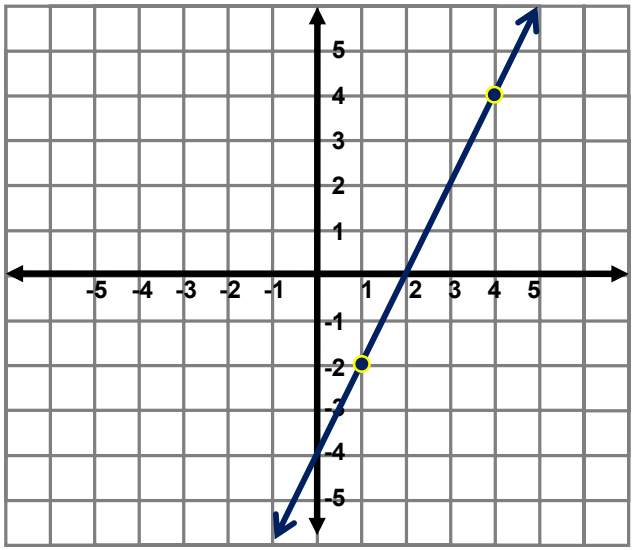


$$slope = \frac{rise}{run}$$

SLOPE OF A LINE

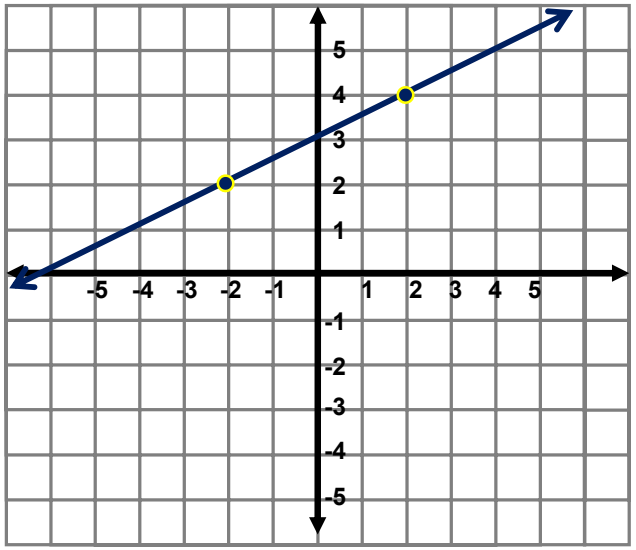


SLOPE OF A LINE



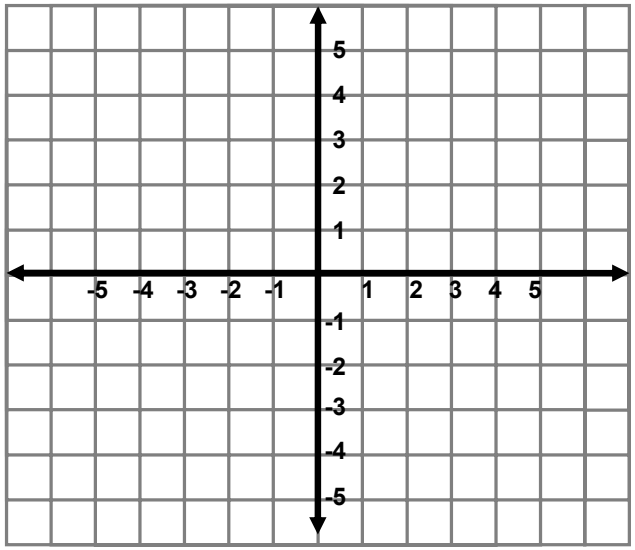
$$slope = \frac{rise}{run}$$

SLOPE OF A LINE



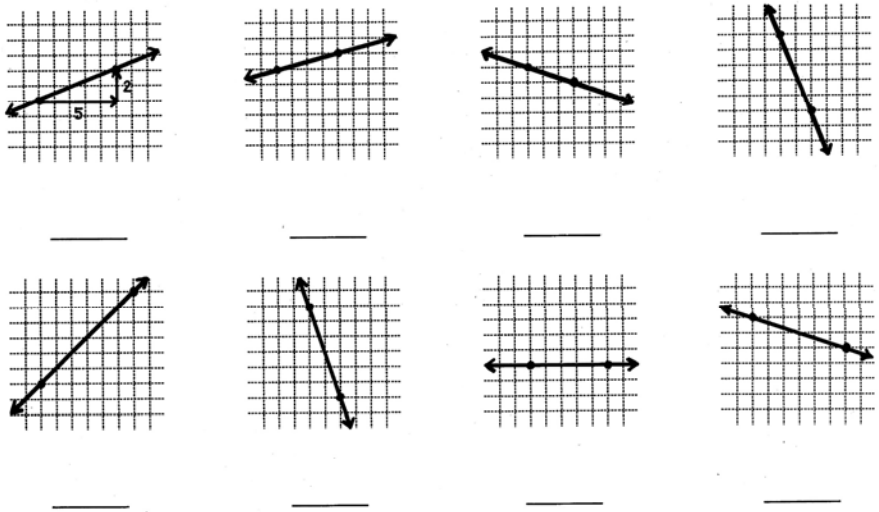
$$slope = \frac{rise}{run}$$

SLOPE OF A LINE

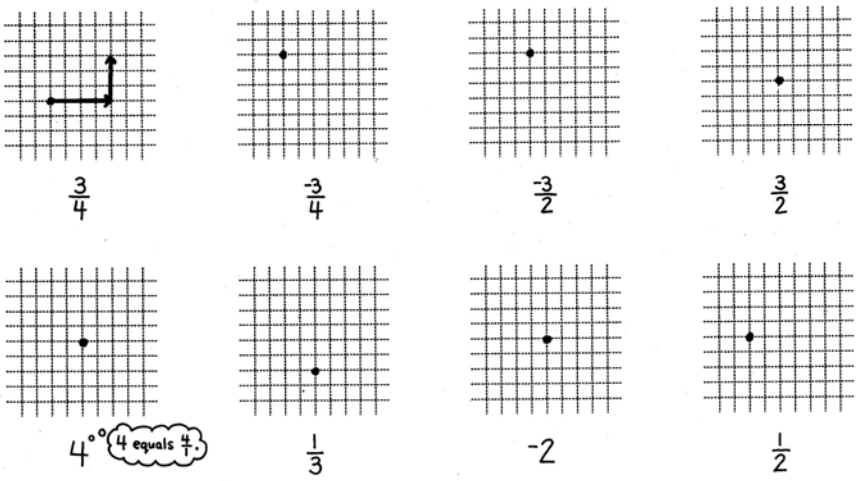


$$slope = \frac{rise}{run}$$

Find the slope of each line. Simplify the slope or write it as an integer if you can.

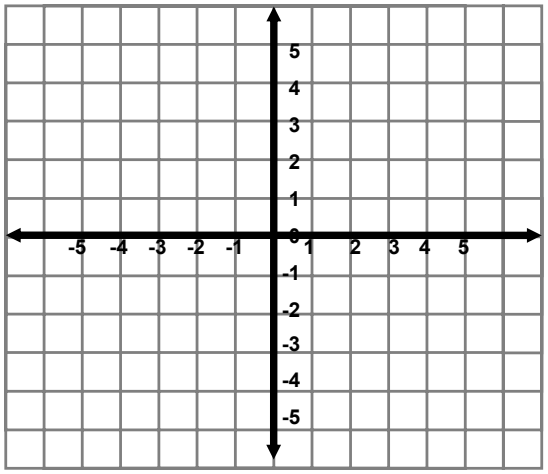


Through each point draw a line that has the slope shown below the grid. Use a ruler.



SLOPE FORMULA

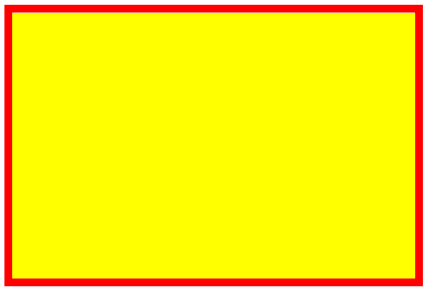
(-3, -4) and (1,2)



SLOPE FORMULA

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

If you do not have the graph of a line use…



SLOPE FORMULA

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

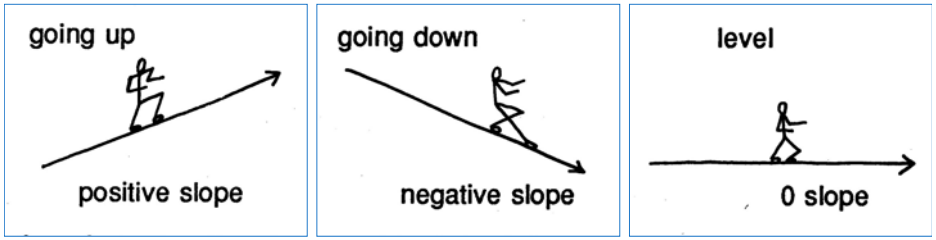
Find the slope between the two points:

1) $(7,-6)$ ***and*** $(-5,2)$

2) $(-2,3)$ ***and*** $(4,8)$

3) $(6,3)$ ***and*** $(2,0)$

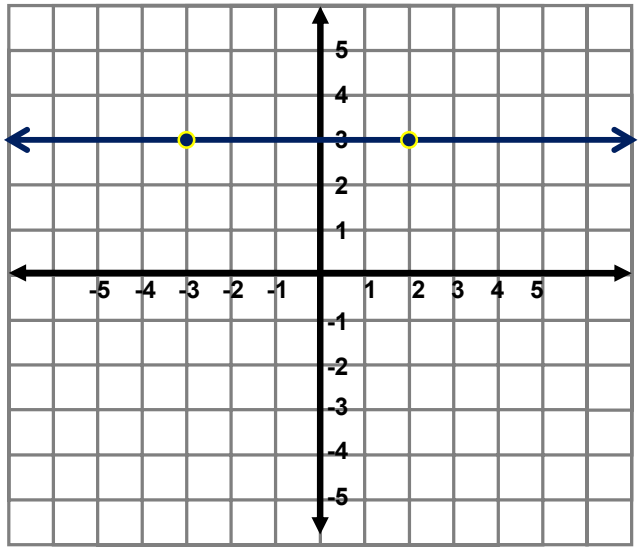
SLOPE OF A LINE



ZERO SLOPE VS UNDEFINED (NO SLOPE)

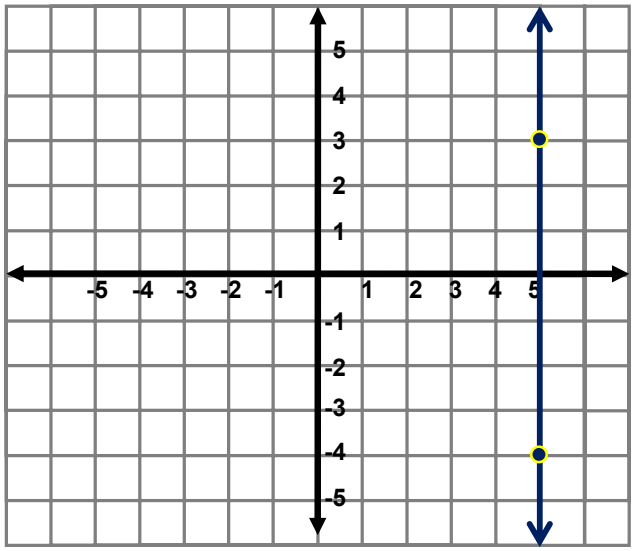
$$\frac{0}{5} \qquad \frac{5}{0}$$

SLOPE OF A LINE



$$slope = \frac{rise}{run}$$

SLOPE OF A LINE



$$slope = \frac{rise}{run}$$

SLOPE FORMULA

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

Find the slope between the two points:

1) $(0,7)$ *and* $(-4,-1)$

2) $(-2,5)$ *and* $(9,5)$

SLOPE FORMULA

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

Find the slope between the two points:

3) $(11, -8)$ ***and*** $(3, 4)$

4) $(-3, 9)$ ***and*** $(-3, 5)$