

# LINEAR FUNCTIONS

**REVIE**

Find the slope between the given points:

a. (3, -7) and (-4, 9)

$$\frac{-7-9}{3-(-4)} = \frac{-16}{7}$$

b. (-2, 0) and (-2, 5)

$$\frac{0-5}{-2-(-2)} = \frac{-5}{0}$$

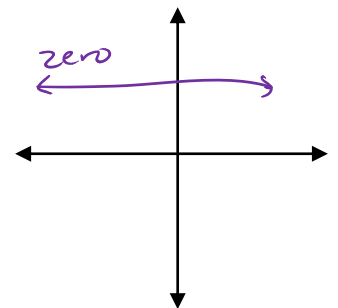
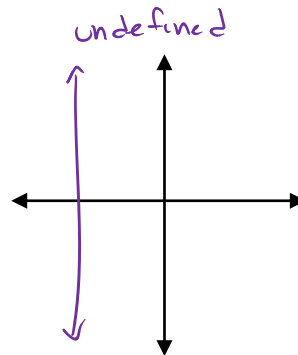
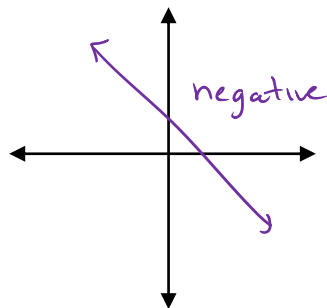
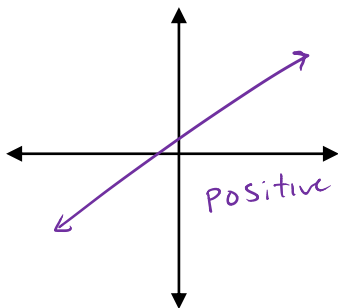
slope is UNDEFINED!

c. (-2, 6) and (-4, 6)

$$\frac{6-6}{-2-(-4)} = \frac{0}{2}$$

slope is 0! zero!

**DIFFERENT TYPES OF**



**X-INTERCEPT:**

where the graph crosses the x-axis ( $\neq, 0$ )

**Y-INTERCEPT:**

where the graph crosses the y-axis ( $0, \neq$ )

Example:  $3x - 6y = -12$

x int:

let  $y=0$

$$3x - 6(0) = -12$$

$$3x = -12$$

$$x = -4$$

$$(-4, 0)$$

y int:

let  $x=0$

$$3(0) - 6y = -12$$

$$-6y = -12$$

$$y = 2$$

$$(0, 2)$$

**GRAPHING LINES**

$$y = -\frac{3}{5}x - 4$$

$$y = 6$$

$$x = -4$$

