

10-7-19 6<sup>th</sup> Geo

Counterexample

Example that proves  
the statement is false.

Ex 1:  $x^2 > x$

Counterexample

$x = 1$

$1^2 > 1$  X

$0^2 > 0$  X

Ex 2:  $x^2 \geq x$

Counterexample:

$.1^2 > .1$

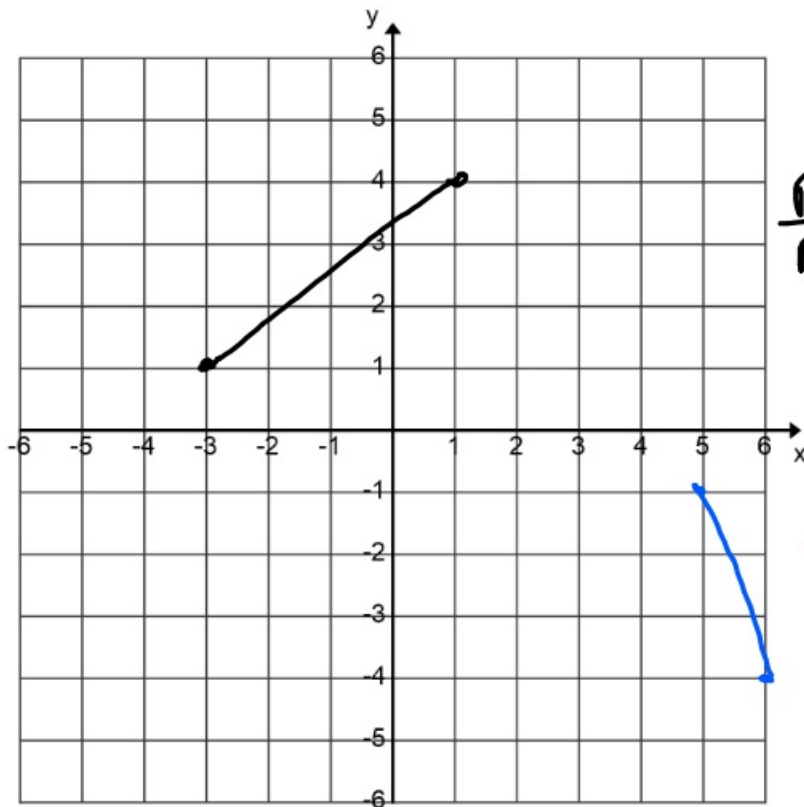
$.01 > .1$  X

FIRE

RISE with the WISE(y)

AND

RUN to the EXIT(x)



$$\frac{\text{Rise}}{\text{Run}} = \frac{3}{4}$$

$$\frac{\text{Rise}}{\text{Run}} = \frac{3}{1} = -3$$

$$(2, 10)$$

$$(4, 18)$$

$$\text{Slope} = \frac{\Delta y}{\Delta x} = \frac{18 - 10}{4 - 2}$$

$$\frac{8}{2}$$

$$4$$

$$(3, -2)$$

$$(5, 8)$$

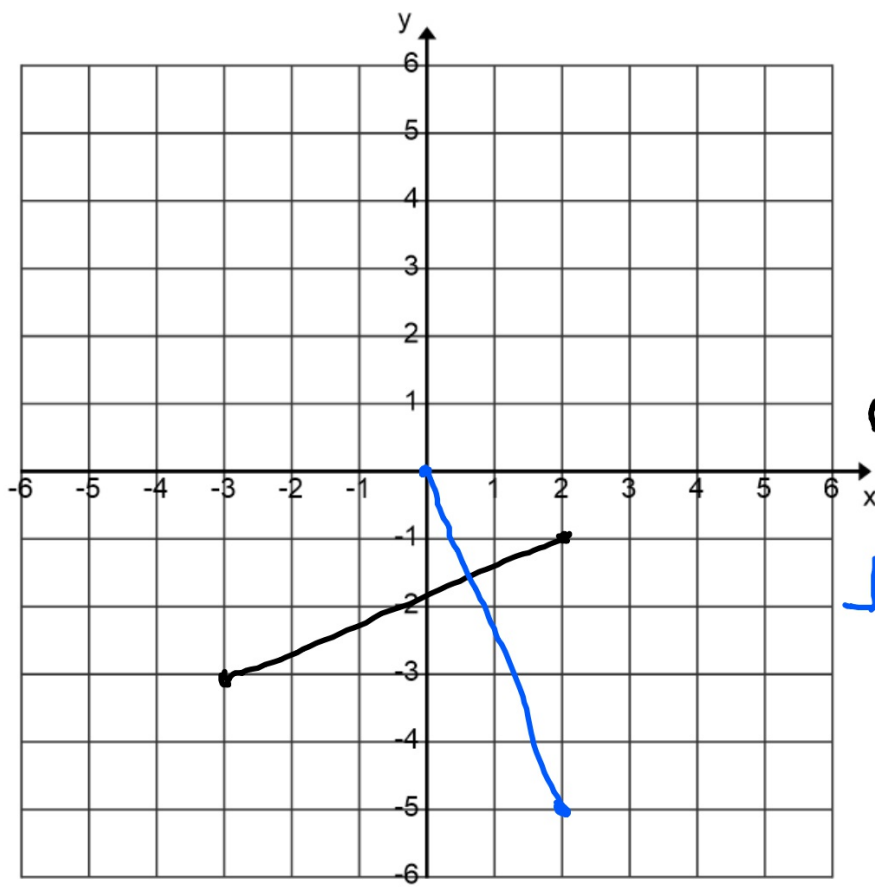
$$\text{slope} = \frac{\text{rise}}{\text{run}} = \frac{\Delta y}{\Delta x}$$

$$\frac{-2 - 8}{3 - 5}$$

$$\frac{8 - -2}{5 - 3}$$

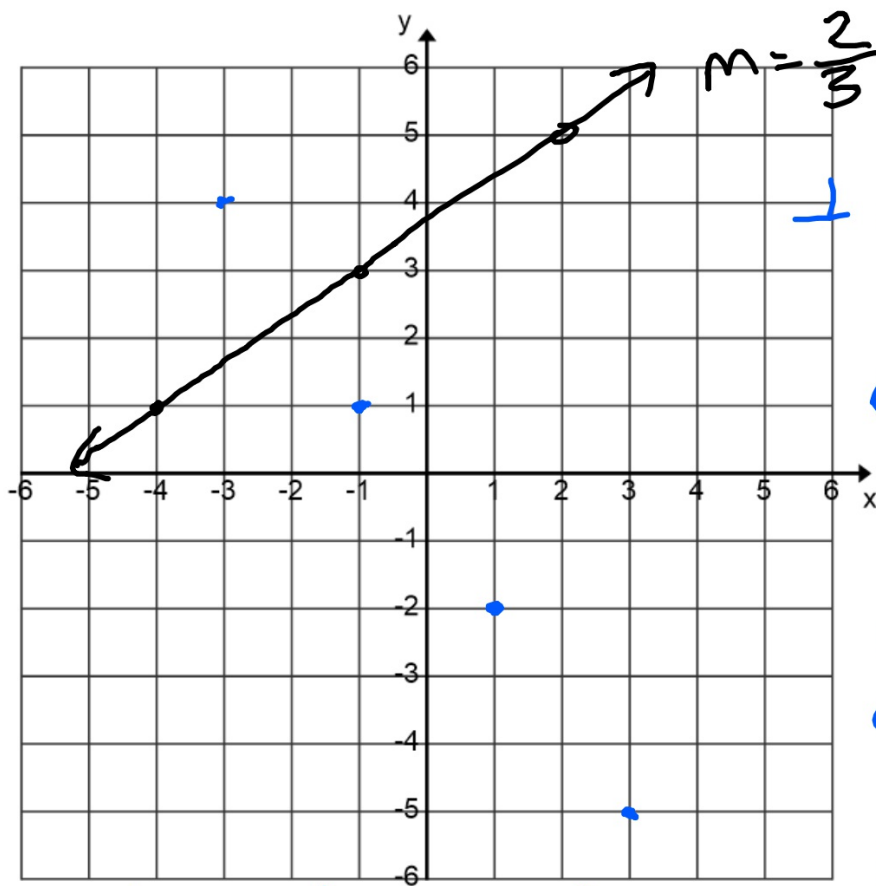
$$\frac{-10}{-2} = 5$$

$$\frac{10}{2} = 5$$



$$m = \frac{2}{5}$$

$$L m = -\frac{5}{2}$$



$$m = \frac{2}{3}$$

$$\perp m = -\frac{3}{2}$$

$(-1, 1)$   $(-3, 4)$   $(3, -5)$

Give another point that with  $(1, -2)$  will give you a  $\perp$  line segment to the black line.

10-7-19 7<sup>th</sup> Geo

Counterexample

Example that counters  
what is stated (proves  
it not true).

Ex 1:  $x^2 > x$

Counterexample  $1^2 > 1$  X  
 $0^2 > 0$  X

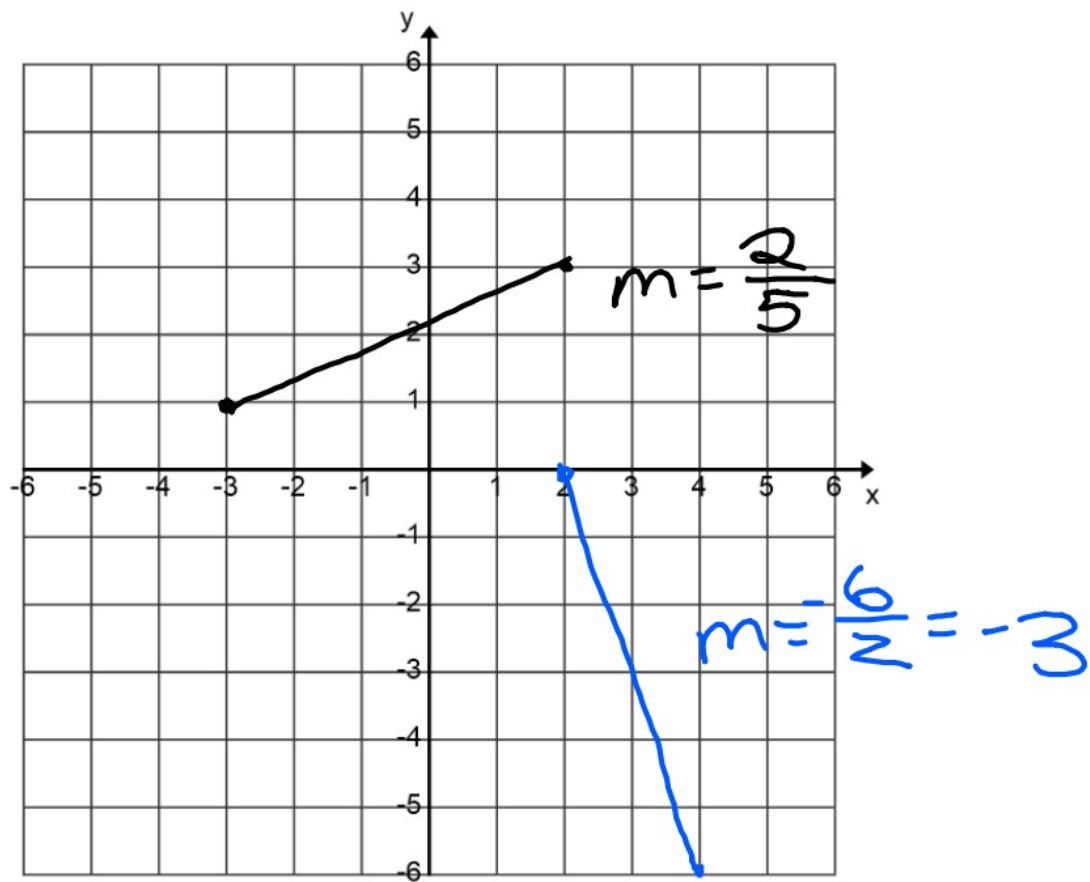
Ex 2:  $x^2 \geq x$

Counterexample  $\frac{1}{2}^2 \geq \frac{1}{2}$   
 $\frac{1}{4} \geq \frac{1}{2}$  X

**FIARE**

RISE with the **WISE (y)**  
and

RUN to the **EXIT(x)**



Slope between

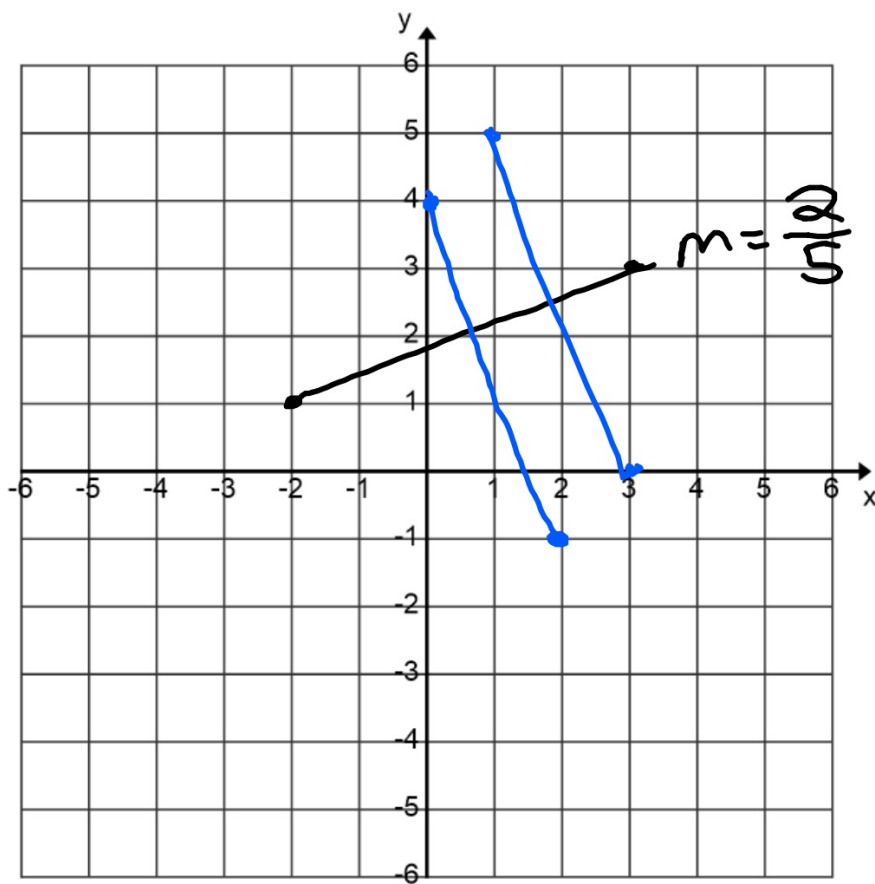
$(2, 8)$

$(5, 17)$

$$m = \frac{\Delta y}{\Delta x} = \frac{17-8}{5-2} = \frac{9}{3}$$

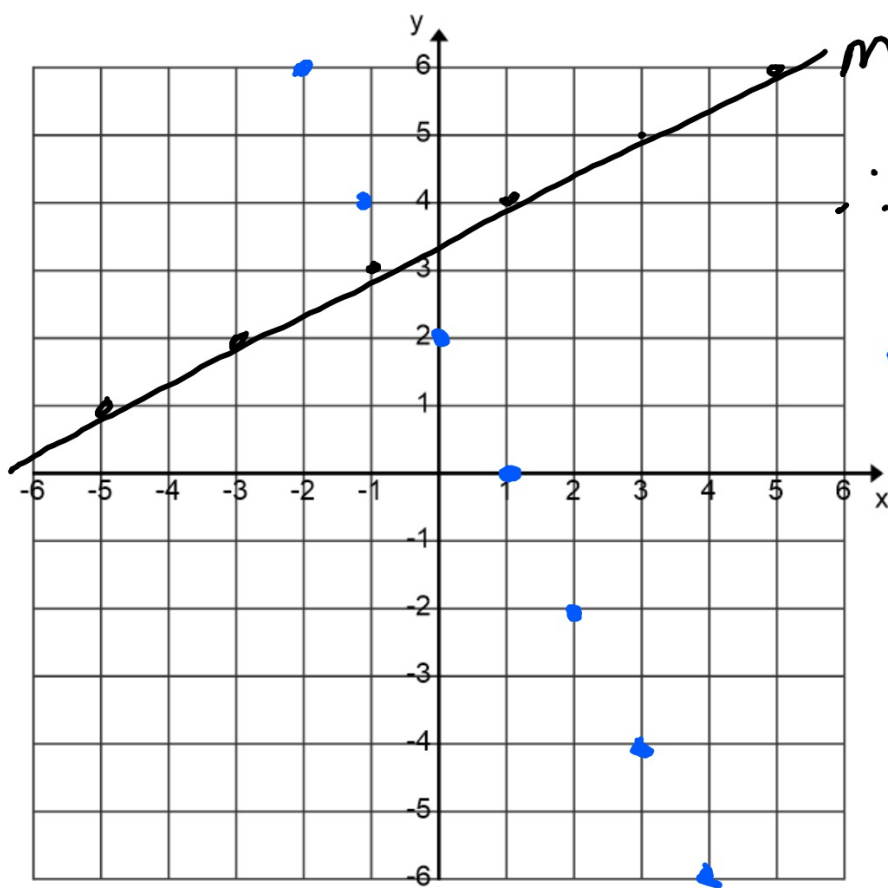
$$= 3$$

$$\frac{8-17}{2-5} = \frac{-9}{-3} = 3$$



$$m = \frac{2}{5}$$

$$\therefore \perp m = -\frac{5}{2}$$



$$m = \frac{1}{2}$$

$$\therefore \perp m = -2$$

Give another point that with (1,0) will be  $\perp$  to the black line.