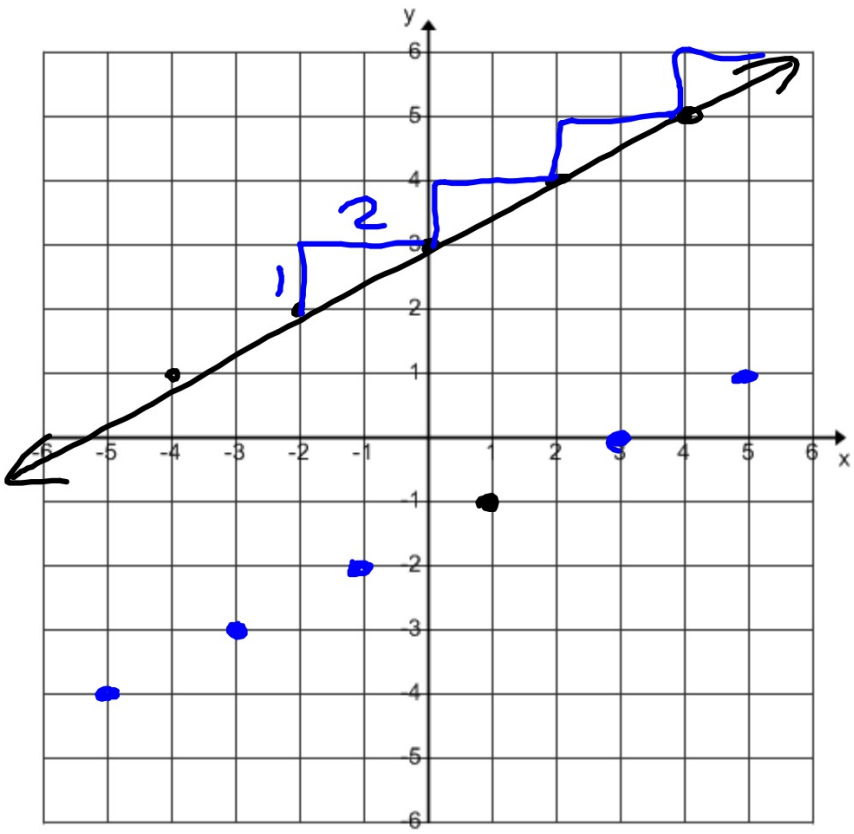
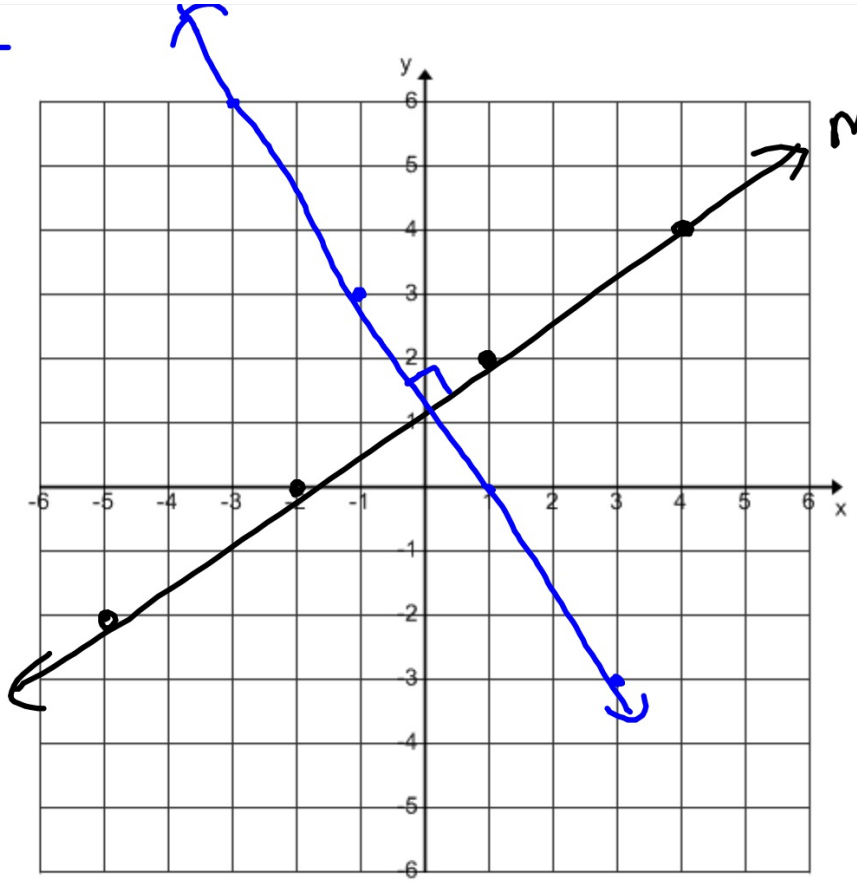
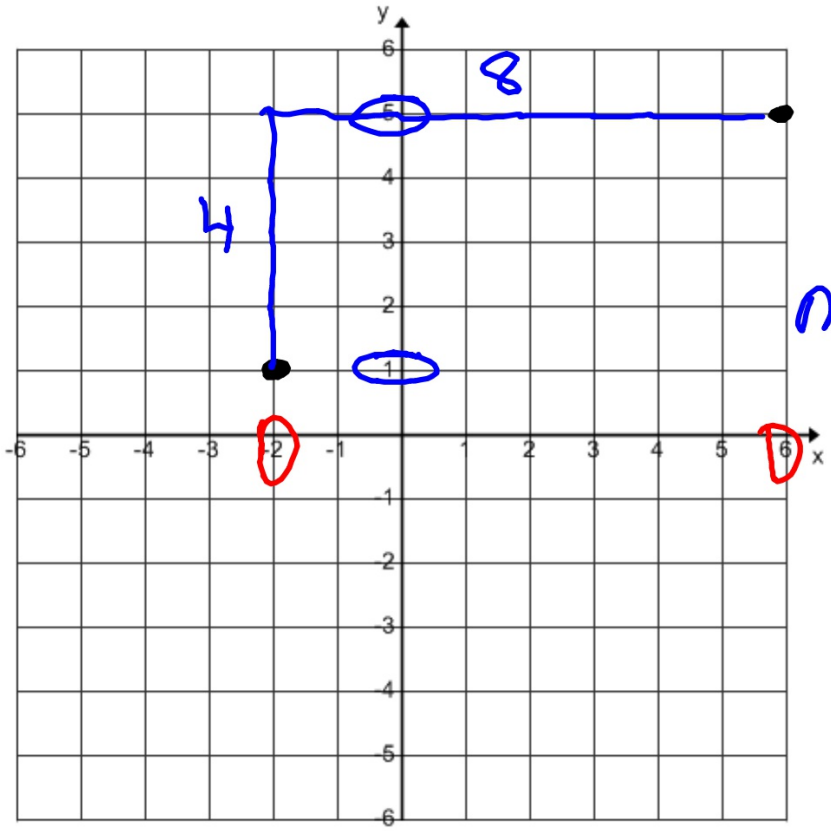

y
x
2
1



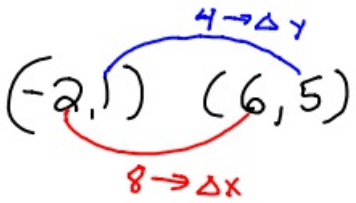

$-$

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

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




$$m = \frac{4}{8} = \frac{1}{2}$$

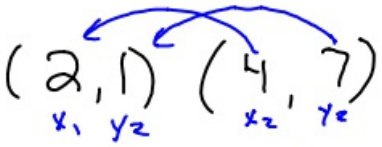



FIRE

Rise with the Wise (y)

AND

Run to the Exit (x)




$$\text{Slope} = \frac{\Delta y}{\Delta x} = \frac{7-1}{4-2} = \frac{6}{2} = 3$$

① (1,6) (4,27)

$$\text{slope} = \frac{\Delta y}{\Delta x} = \frac{27-6}{4-1} = \frac{21}{3} = 7$$

② (-3,6) (-1,-8)

$$\text{Slope} = \frac{\Delta y}{\Delta x} = \frac{6--8}{-3--1} = \frac{14}{-2} = -7$$

(3) Line a has points of (3,7) and (5,17). If $a \perp b$, what is the slope of line b?

m of line a $= \frac{\Delta y}{\Delta x} = \frac{17-7}{5-3} = \frac{10}{2} = 5$

$\therefore \perp m = -\frac{1}{5}$

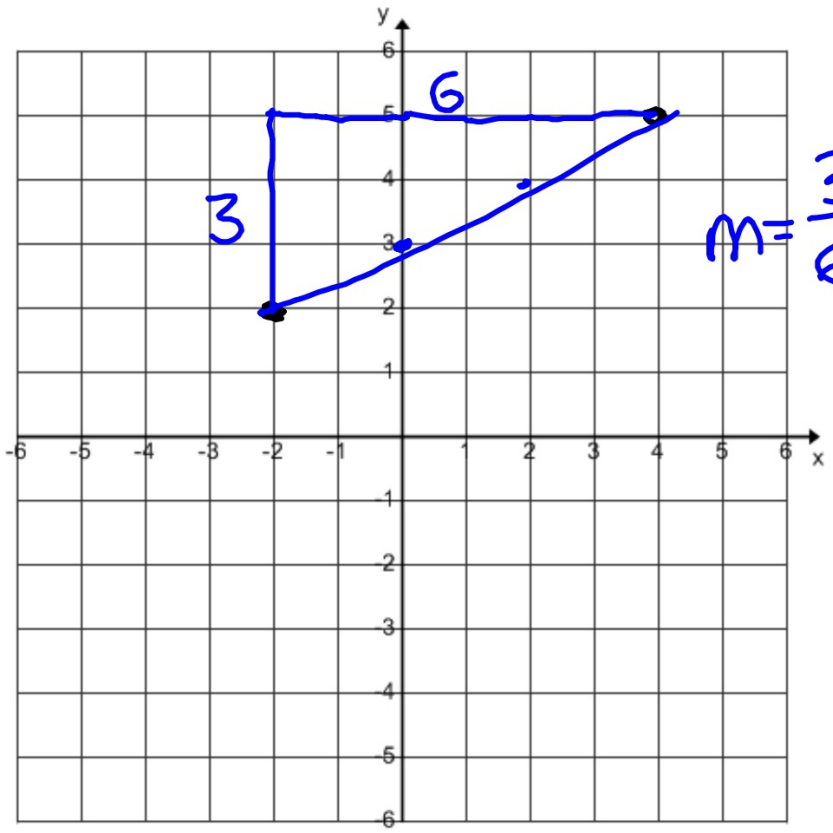
Point Slope form

$y - y_1 = m(x - x_1)$

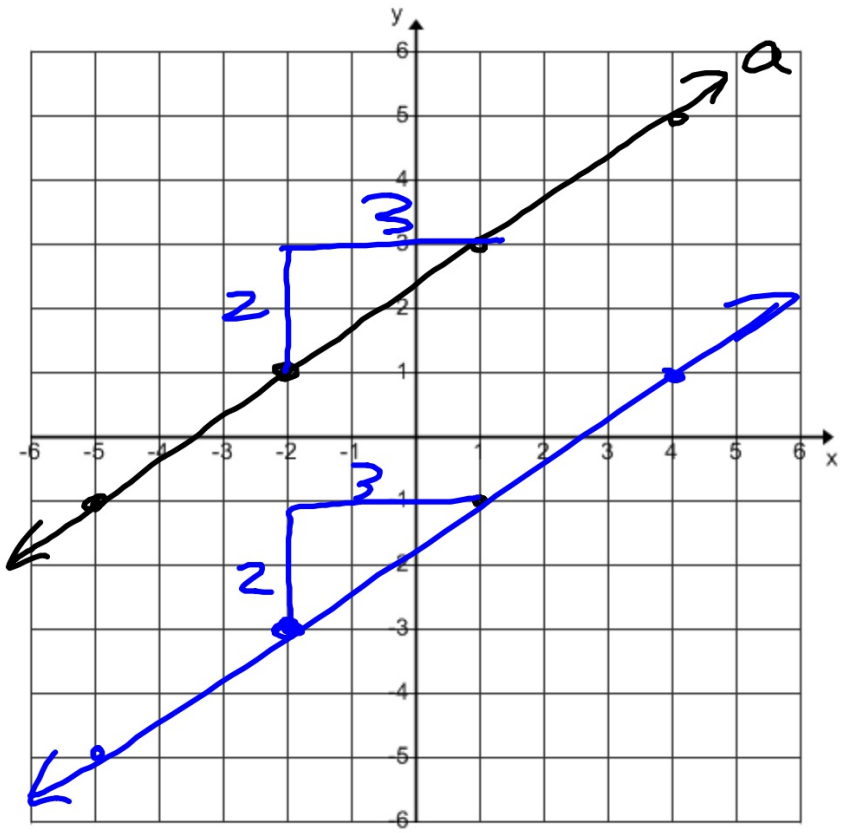
$y_1$: given; $m$: search for him.; $x_1$: given

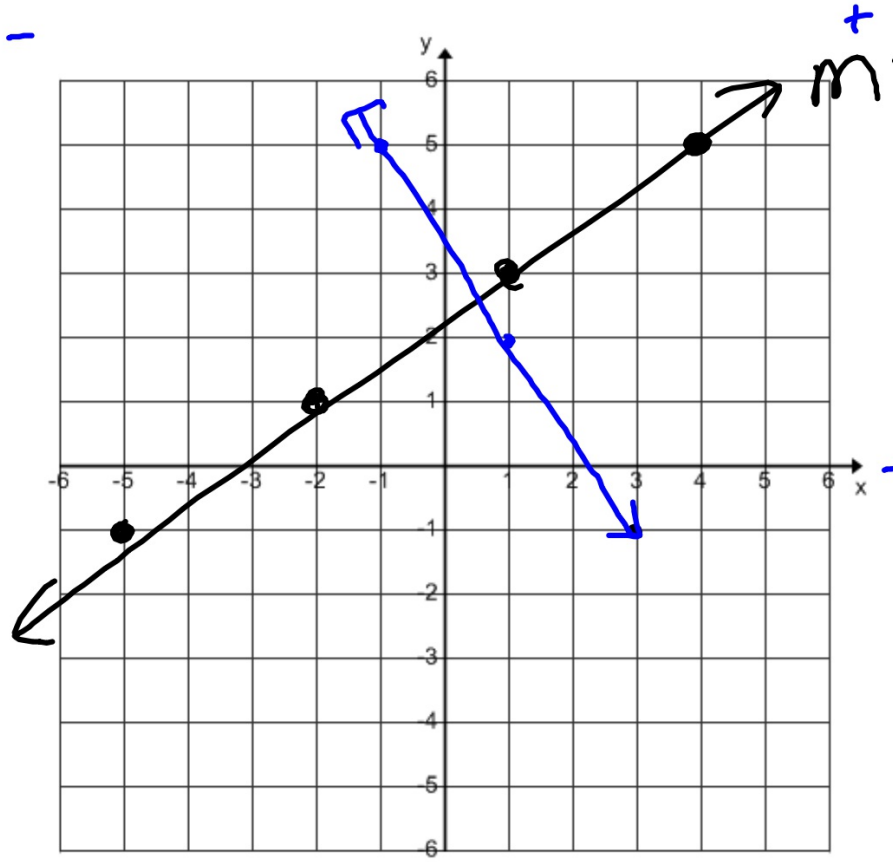
$y = mx + b$

10-12-17 6th Geo



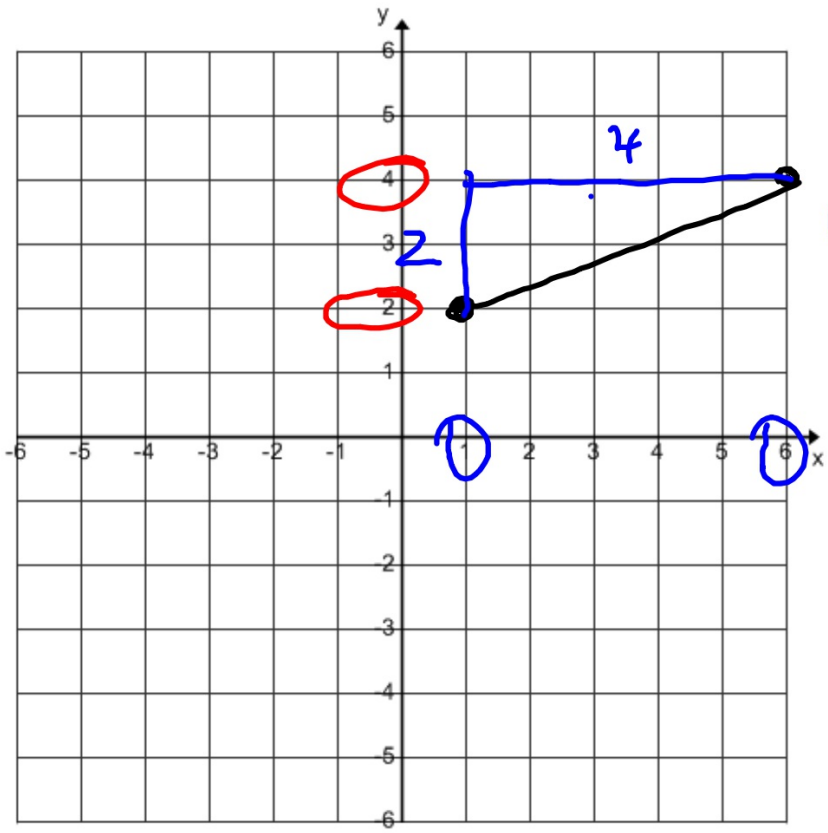

$m = \frac{3}{6} = \frac{1}{2}$

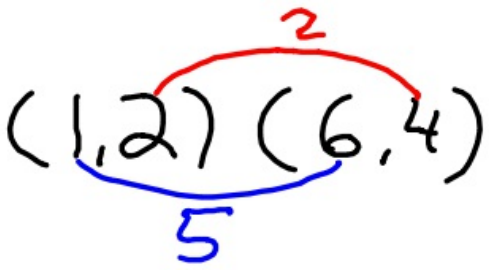

y
x
a
3
2
3
2




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

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


y
x
4
2
5
m= 2/5
← y
← x




# FIRE

Rise with the wise(y)

_____ AND _____

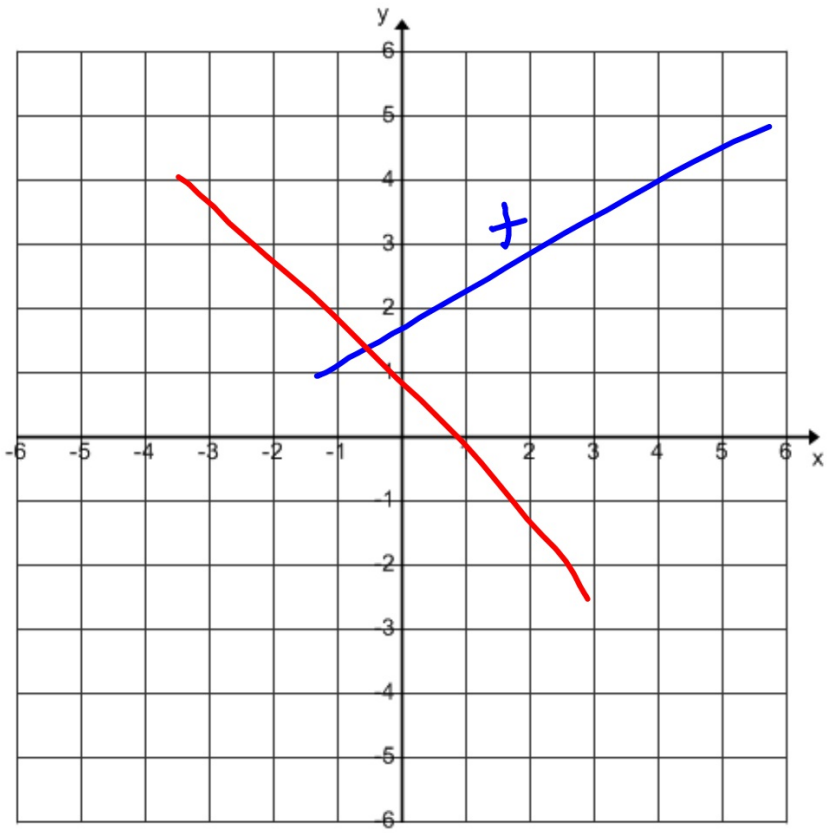
Run to the Exit(x)

① $(2,10)(4,18)$
$x_1\ y_1\quad x_2\ y_2$

$$m = \frac{\Delta y}{\Delta x} = \frac{18-10}{4-2} = \frac{8}{2} = 4$$

② $(-1,-8)(-4,1)$

$$m = \frac{\Delta y}{\Delta x} = \frac{1--8}{-4+1} = \frac{9}{-3} = -3$$


y
x
6
5
4
3
2
1
-1
-2
-3
-4
-5
-6
-6
-5
-4
-3
-2
-1
1
2
3
4
5
6
+

③ Line a has points (2,4) and (4,12). If $a \perp b$, what is the slope of line b?

line a has a slope of $\frac{\Delta y}{\Delta x}$

$\frac{12-4}{4-2} = \frac{8}{2} = 4 \quad \therefore \perp m = -\frac{1}{4}$

Point Slope formula

$$y - y_1 = m(x - x_1)$$

- $y_1$: always given
- $m$: only thing you must find
- $x_1$: always given