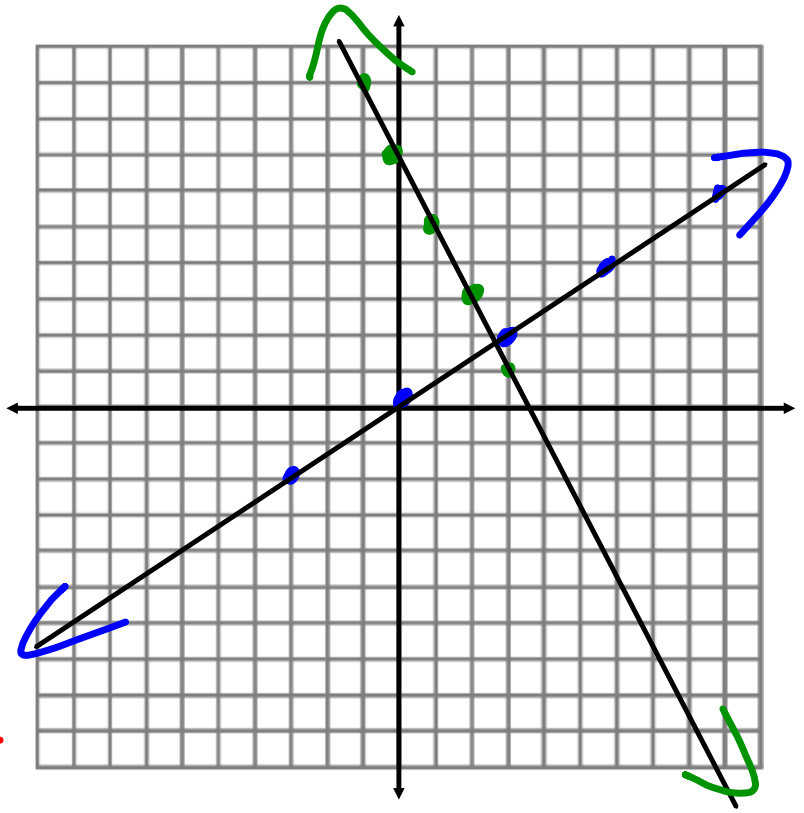
HW: 3.3/14-17, 25-35 odd

Warm up:

Graph.

$y = -2x + 7$

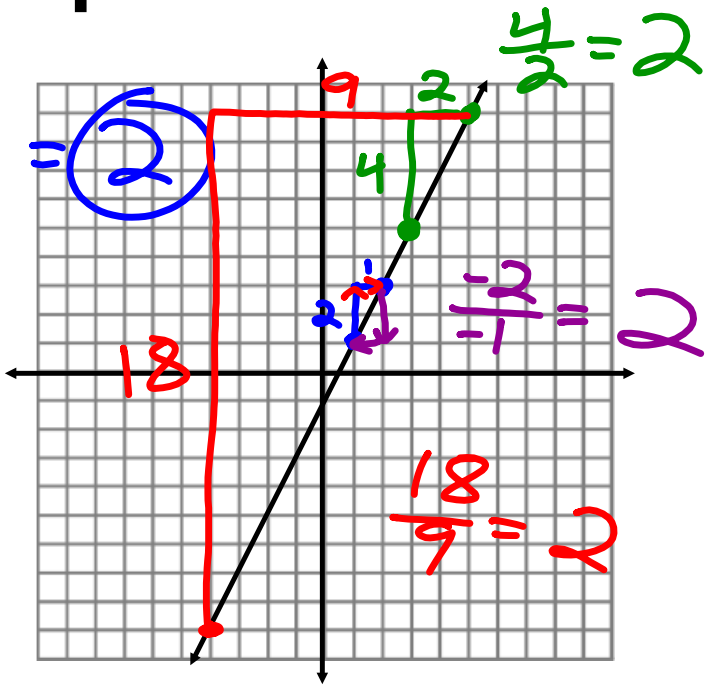
$y = (2/3)x$



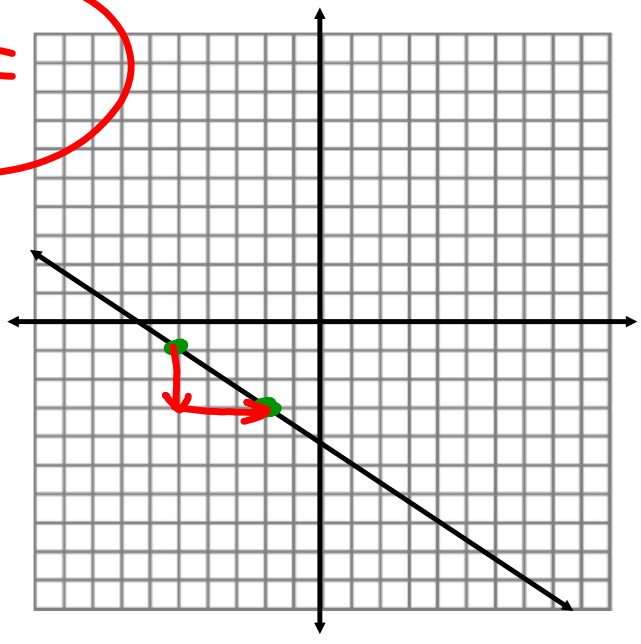
Slope

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

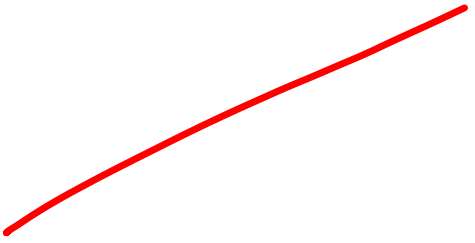
$$\frac{2}{1} = 2$$



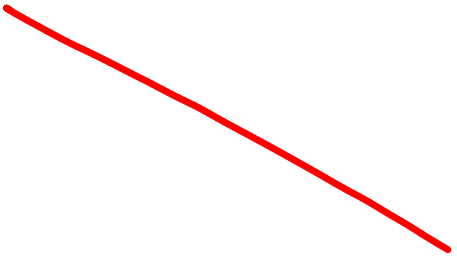
$$\frac{-2}{3} = -\frac{2}{3}$$



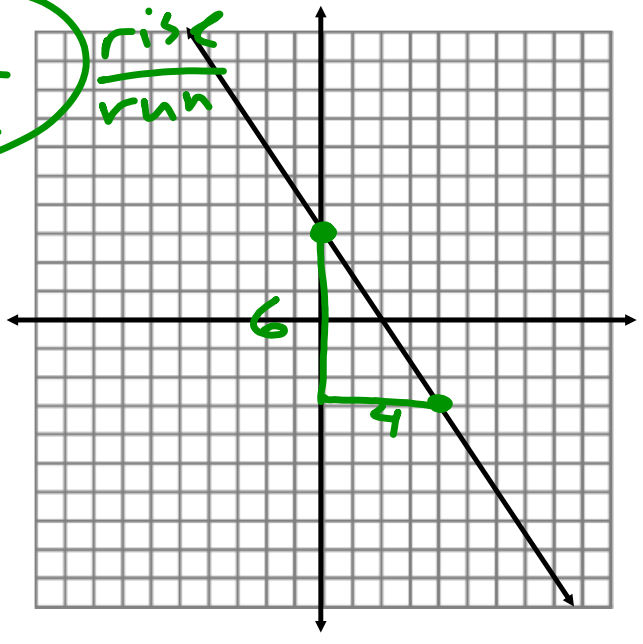
Positive Slope



Negative Slope

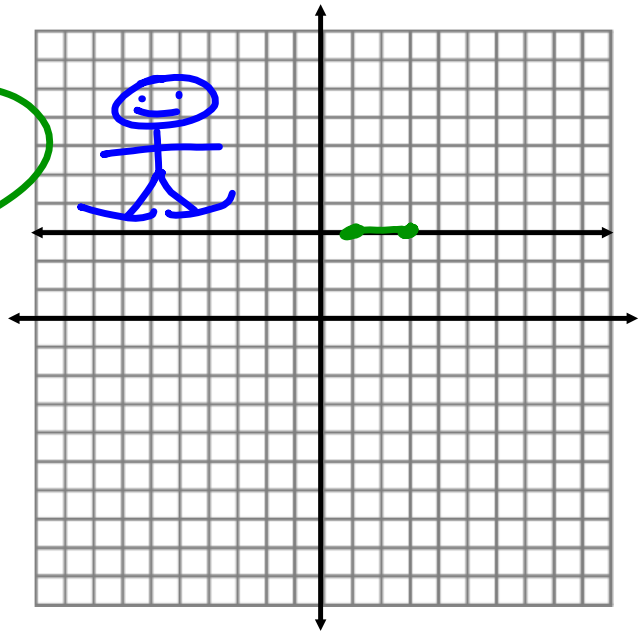


$-\frac{6}{4} = -\frac{3}{2}$ $\frac{\text{rise}}{\text{run}}$



$y = 3$

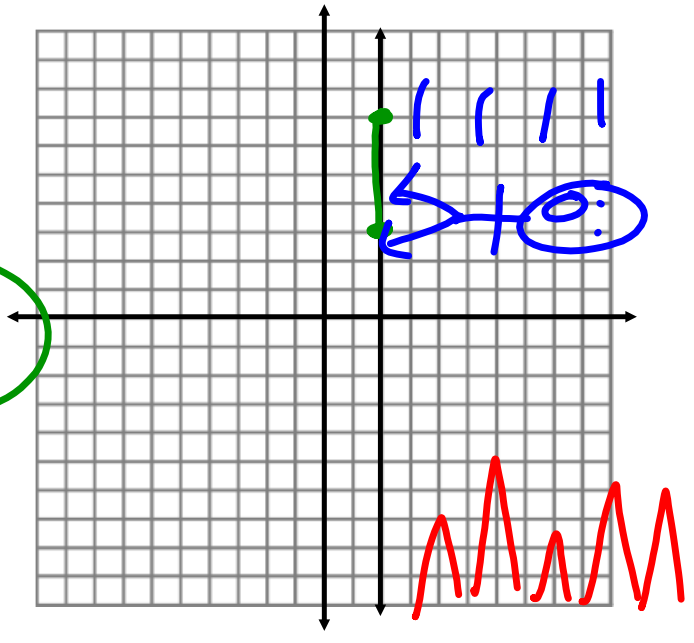
$\frac{0}{2} =$



$x = 2$

$\frac{4}{0}$

undefined



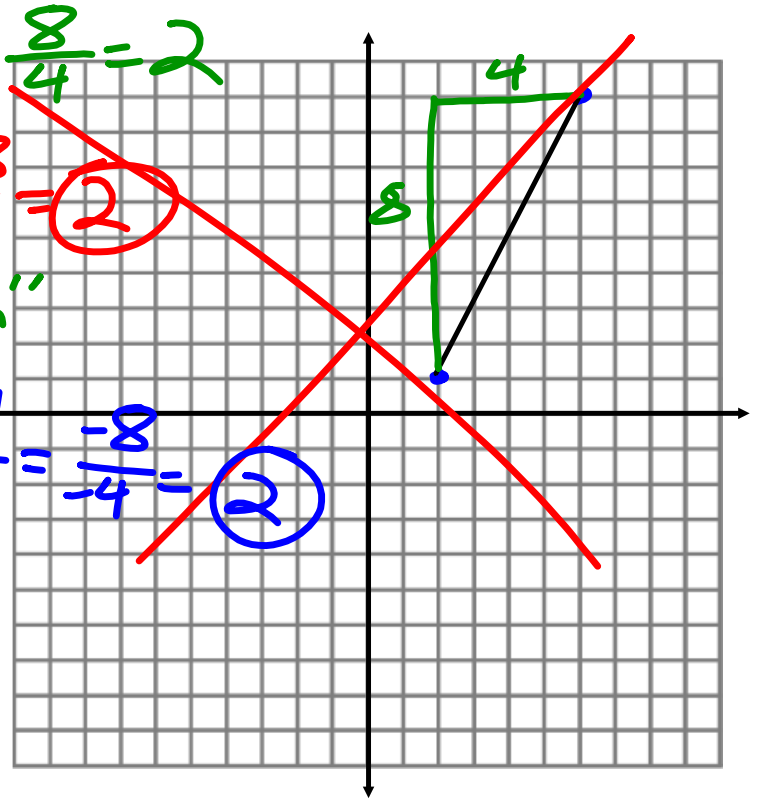
(2, 1) (6, 9)

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

$\frac{\text{rise}}{\text{run}}$ $\frac{9-1}{6-2} = \frac{8}{4} = 2$

"change in"

$\frac{\Delta y}{\Delta x}$ $\frac{1-9}{2-6} = \frac{-8}{-4} = 2$



For the slope of a line between two points (x_1, y_1) and (x_2, y_2)…

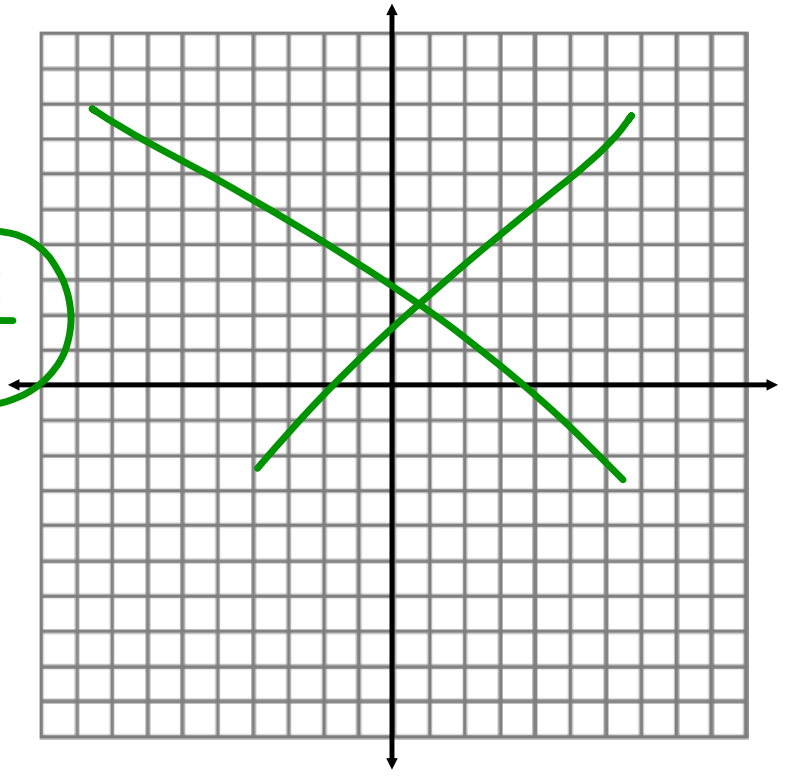
$\frac{\Delta y}{\Delta x}$

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

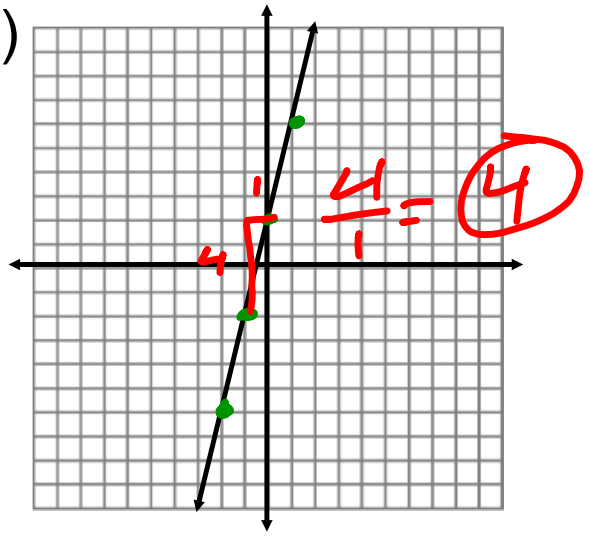
(1, 4) (3, 7)

$$\frac{\Delta y}{\Delta x} = \frac{4-7}{1-3}$$

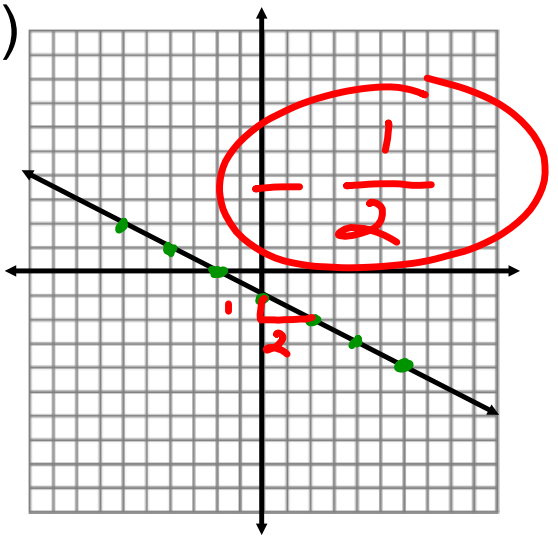
$$= \frac{-3}{-2} = \frac{3}{2}$$



1)



2)



The line between...

3) (2, 4) and (-5, 10)

$\frac{10-4}{-5-2} = \frac{6}{-7} = -\frac{6}{7}$

$\frac{\Delta y}{\Delta x}$

4) (2, 5) and (6, 5)

$\frac{5-5}{6-2} = \frac{0}{4} = 0$

5) (-1, 0) and (4, -3)

$\frac{-3-0}{4-(-1)} = \frac{-3}{5} = -\frac{3}{5}$

6) (4, 7) and (4, -9)

$\frac{-9-7}{4-4} = \frac{-16}{0}$

undefined

x	y
1	-2
2	1
3	4
4	7

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

$$= 3$$

x	y
1	2
2	0
3	-2
4	-4

January 4, 2022