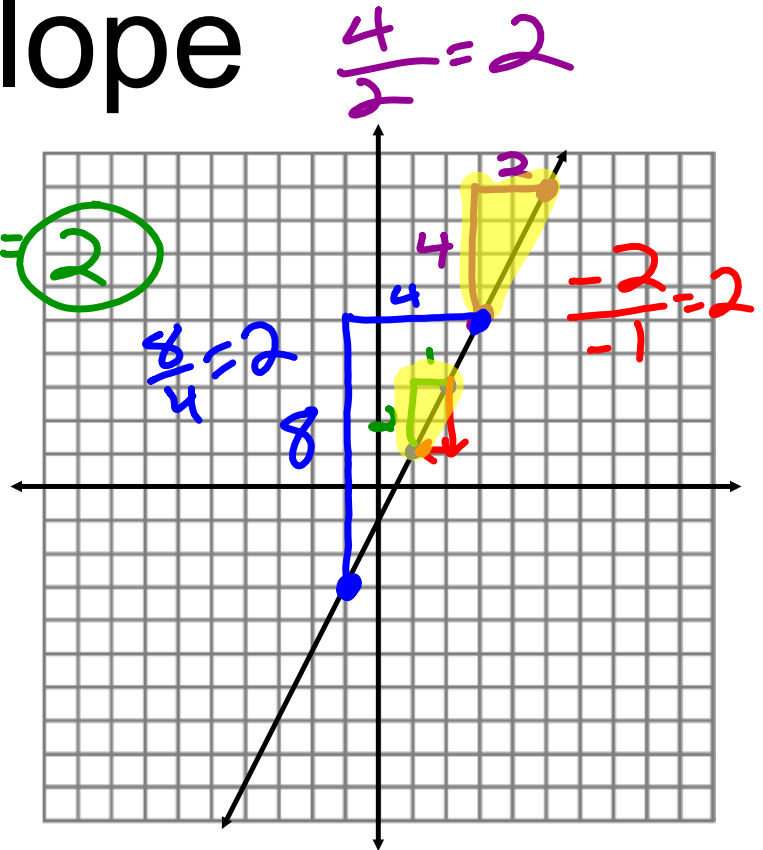
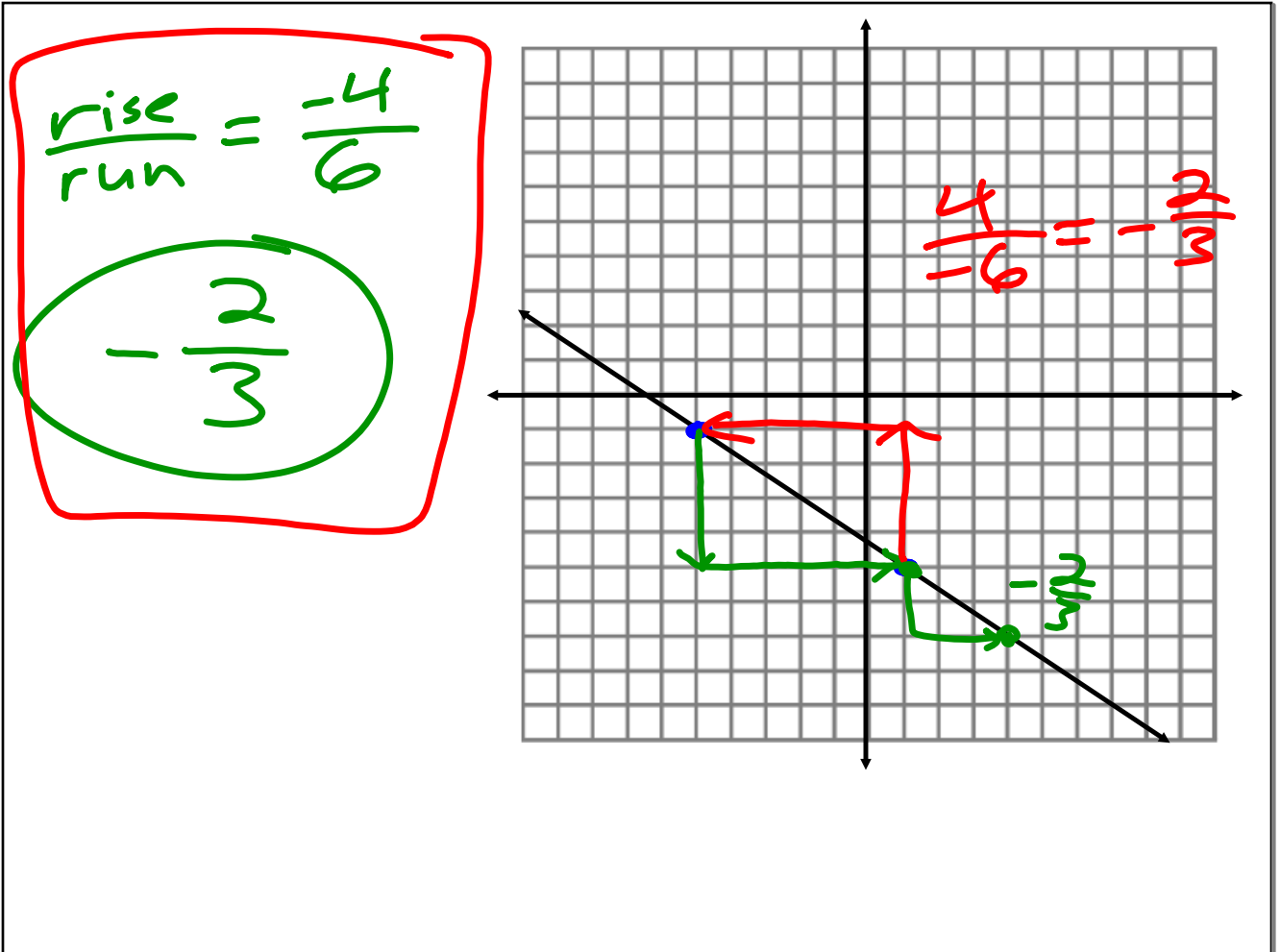


HW: Worksheet/9-22

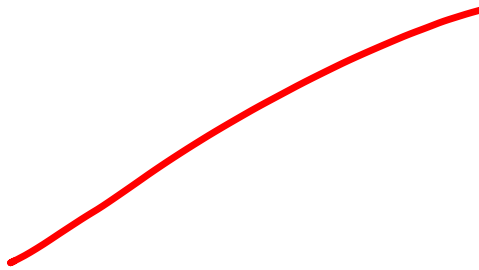
# Slope

$$\frac{\text{rise}}{\text{run}} = \frac{2}{1} = 2$$

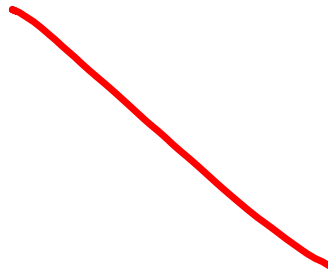




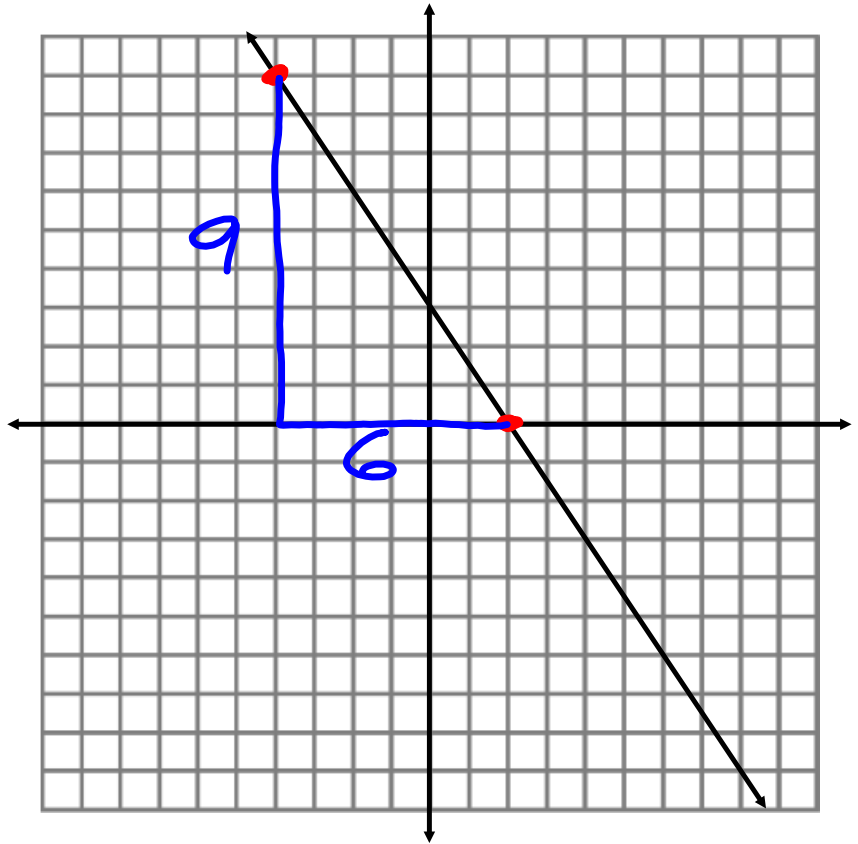
Positive Slope



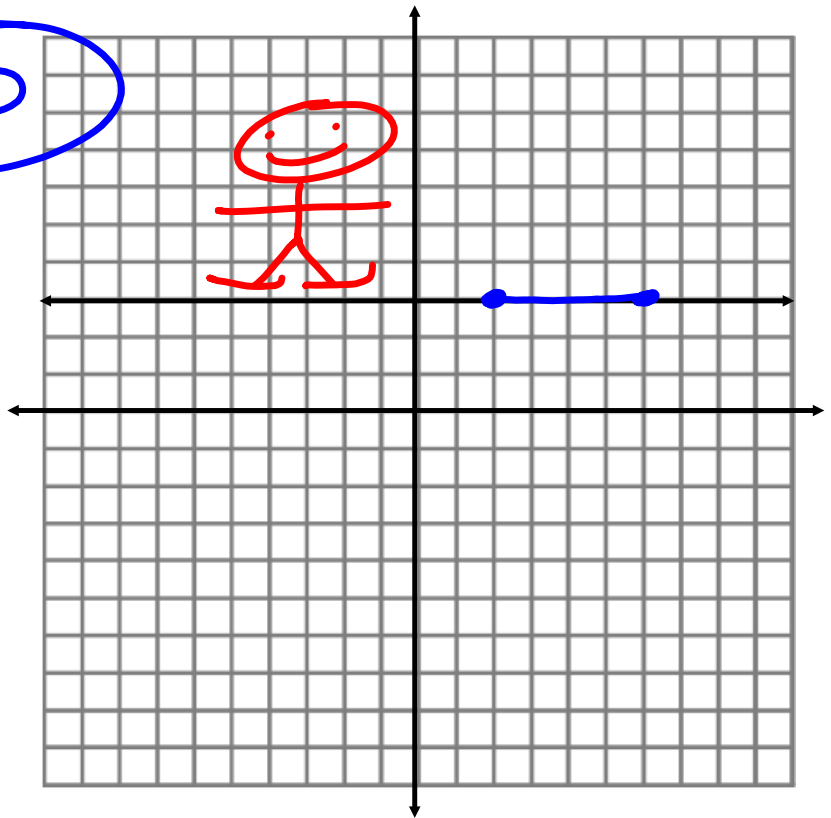
Negative Slope



$$\frac{1}{3} \frac{6}{9}$$

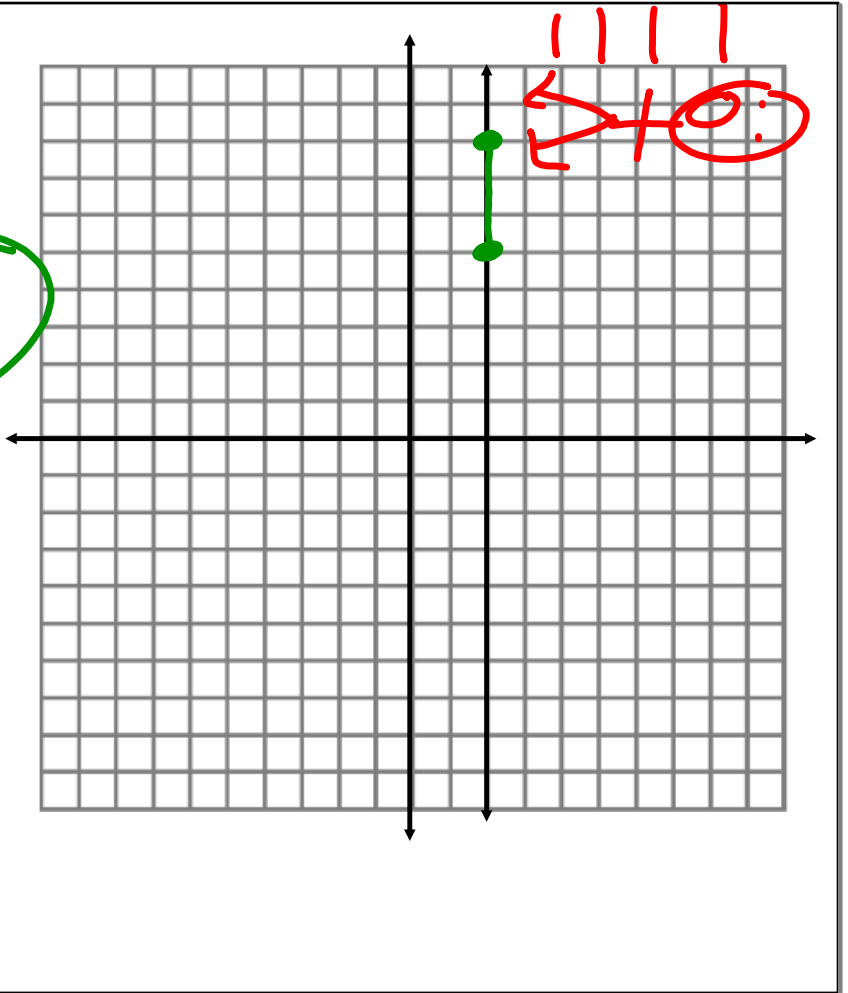


$$\frac{0}{4} = \textcircled{0}$$



$$\frac{3}{0}$$

undefined



(2, 1) (6, 9)

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

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

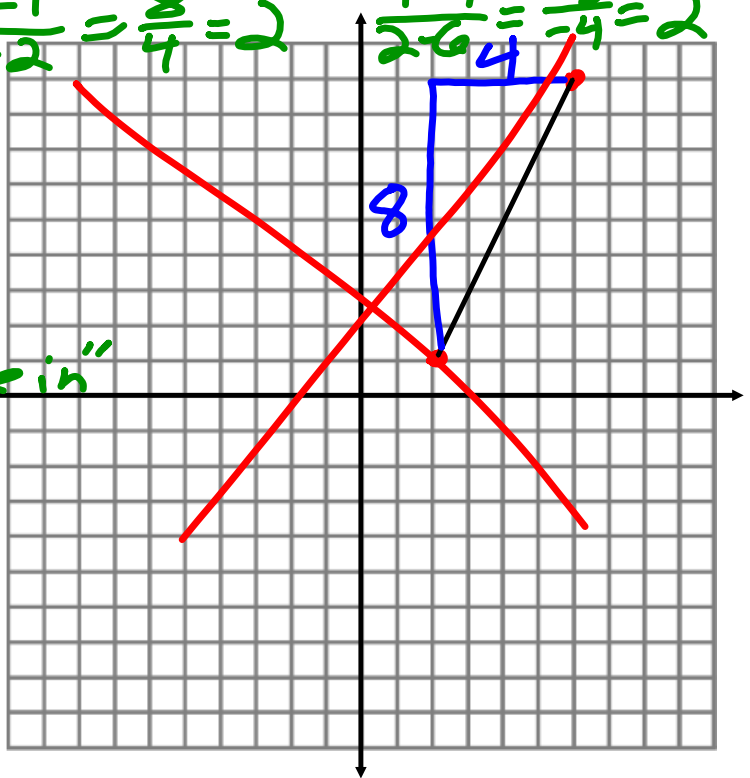
$$\frac{8}{4} = 2$$

$$9-1=8$$

$$6-2=4$$

↓ "change in"

$$\frac{\text{rise}}{\text{run}} = \frac{\Delta Y}{\Delta X}$$





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

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

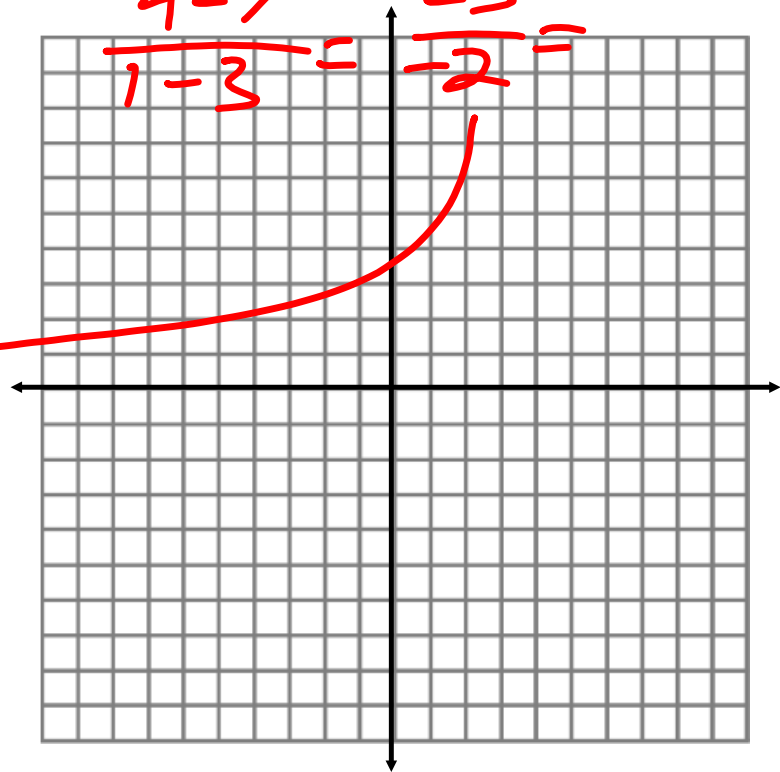
$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

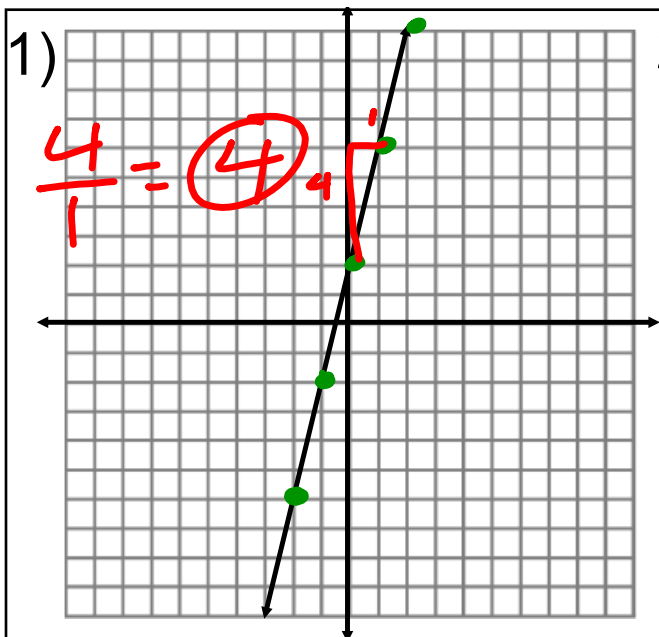
(1, 4) (3, 7)

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

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

$$\frac{4-7}{1-3} = \frac{-3}{-2} =$$

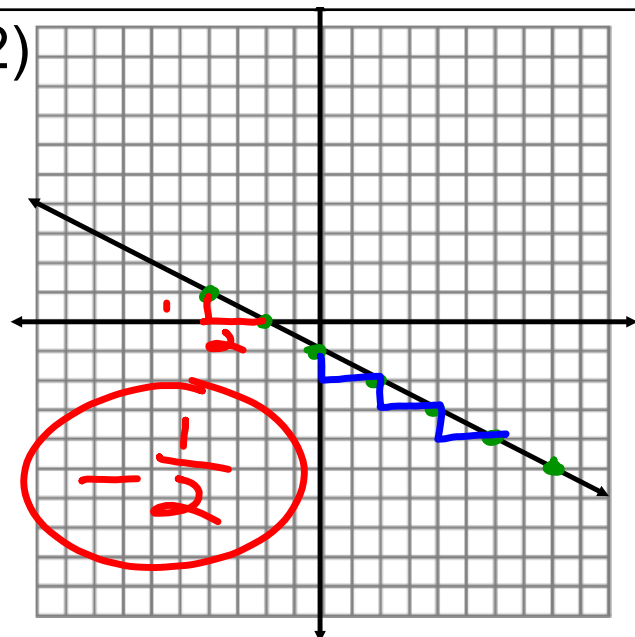




The line between...

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

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



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)

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

x	y
1	-2
2	1
3	4
4	7

$$\frac{\Delta y}{\Delta x} = \frac{4 - 1}{3 - 2} = \frac{3}{1} = 3$$

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

