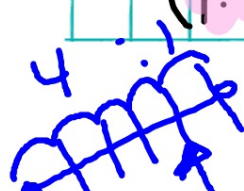


#3

$$x = -2.5$$

$$+3.2 - 6.4$$

$$(1.2, -1.4)$$



$\frac{4}{5}$ of the way

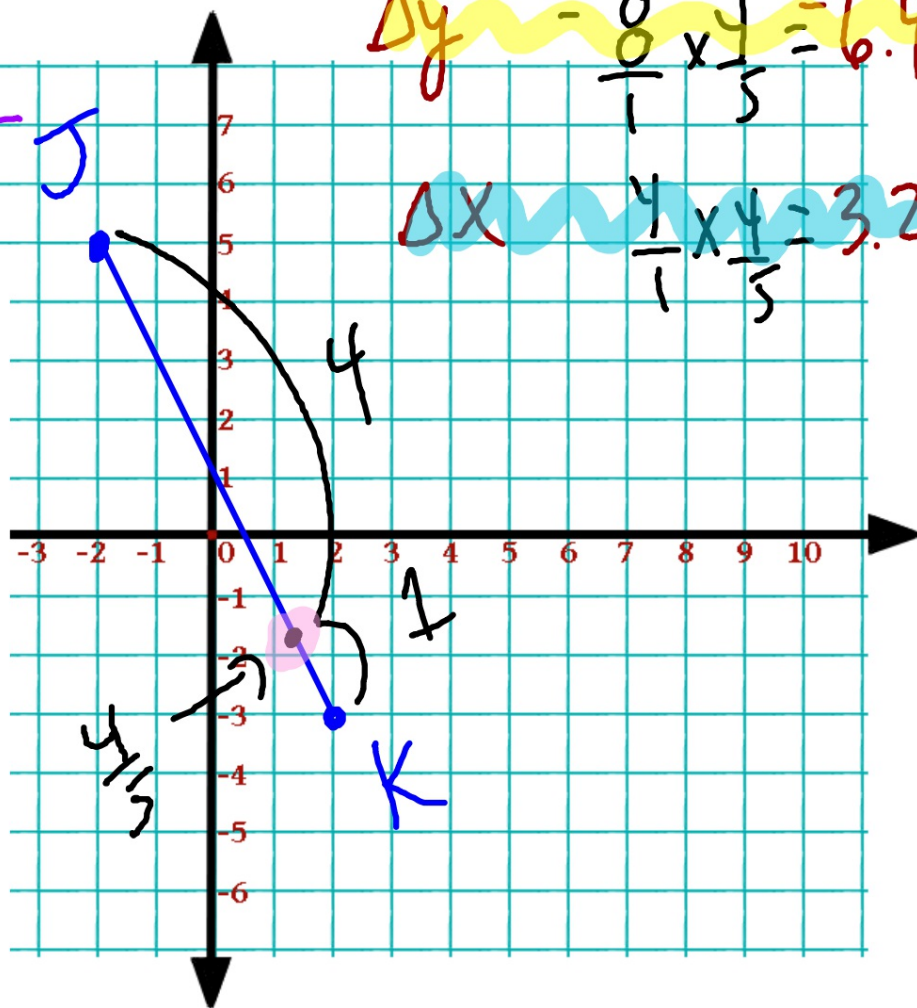
$$\frac{4}{5}$$

$$= -6.4 \Delta y$$

$$3.2 \Delta x$$

$$\Delta y = -\frac{8}{1} \times \frac{4}{5} = -6.4$$

$$\Delta x = \frac{4}{1} \times \frac{4}{5} = 3.2$$



#4

Ratio 1:3

$\frac{1}{4}$ th of the way

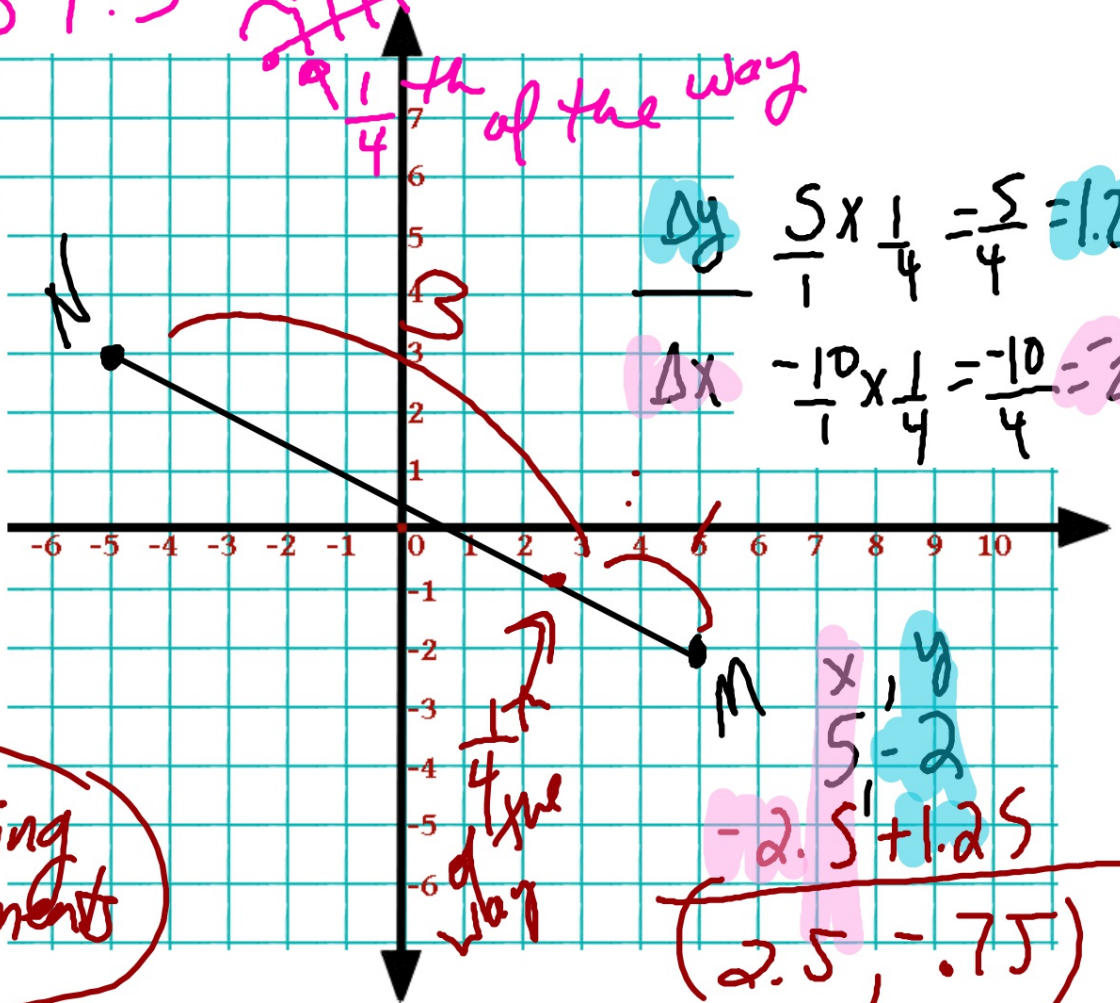
M to N

$$\Delta y = 1.25$$

$$\Delta x = -2.5$$

$$\Delta y \quad 5 \times \frac{1}{4} = \frac{5}{4} = 1.25$$

$$\Delta x \quad -10 \times \frac{1}{4} = -\frac{10}{4} = -2.5$$



x, y
5, -2

$$\frac{-2.5 + 1.25}{(2.5, -0.75)}$$

Partitioning Line Segments

Ratio 2:1

#7

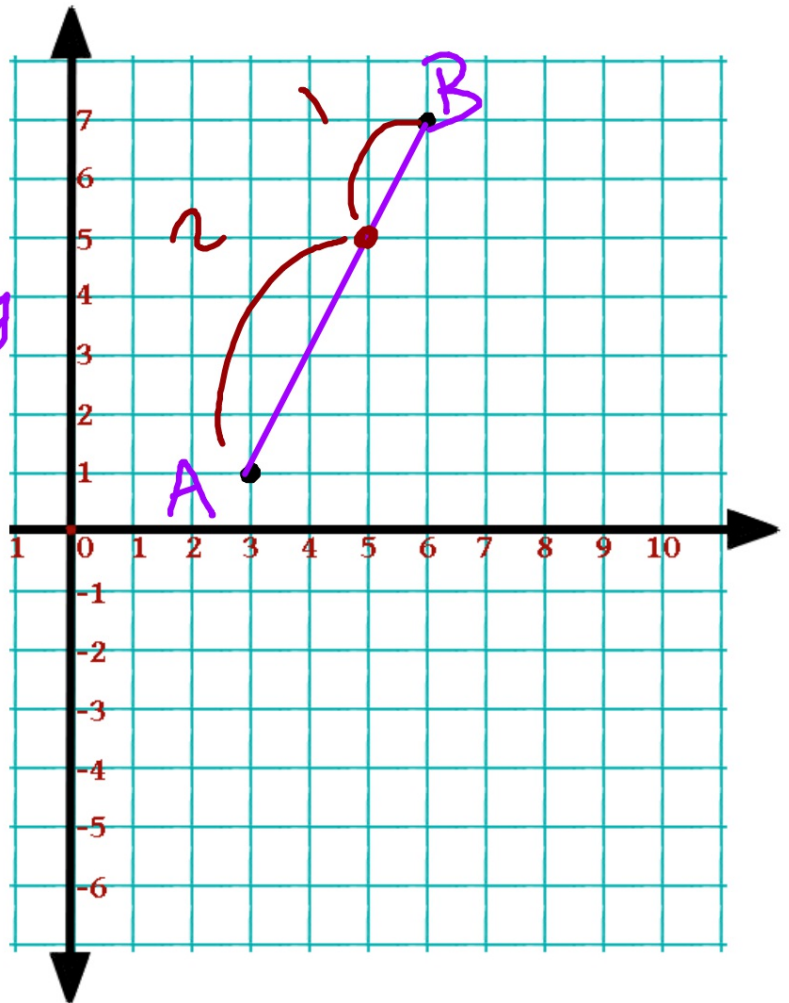
Slope

$$\frac{\Delta y}{\Delta x} = \frac{6x^{2/3}}{3x^{2/3}}$$

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

$$\begin{array}{r} x \quad y \\ 3 \quad 1 \\ +2 \quad 4 \\ \hline (5, 5) \end{array}$$

2:1
3
2/3 of the way



Ratio 1:4 $\frac{1}{5}$ of the way

SLOPE

$$\frac{\Delta y}{\Delta x} \quad 4 \cdot \frac{1}{5} = 0.8 \Delta y$$

$$\frac{\Delta y}{\Delta x} \quad \frac{4}{8} \cdot \frac{1}{5} = 1.6 \Delta x$$

