11-5-13

3rd Trig

Slope FIRE

Rise with the wise (y)

AND

Run to the exit (x)

$$\text{Slope} = \frac{\Delta y}{\Delta x}$$

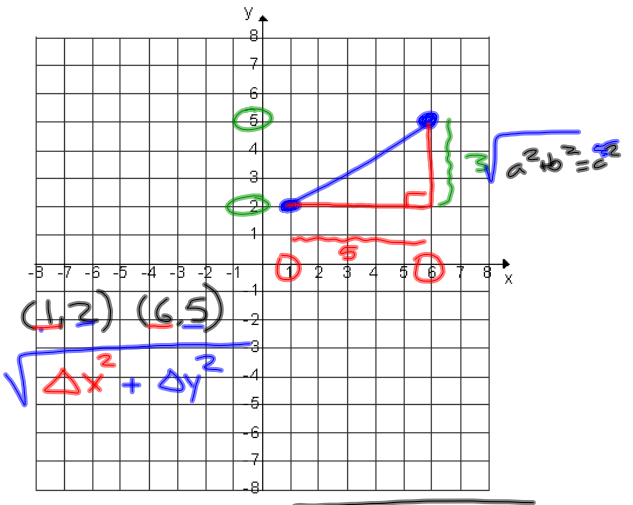
Find slope between (1,4) and (3,14).

$$\text{slope} = \frac{\Delta y}{\Delta x} = \frac{14-4}{3-1} = \frac{10}{2} = 5$$

You find slope between

(-2,-6) and (1,6)

$$\text{Slope} = \frac{\Delta y}{\Delta x} = \frac{6--6}{1--2} = \frac{12}{3} = 4$$



$$\text{Distance} = \sqrt{\Delta x^2 + \Delta y^2}$$

Find the distance between

(1, 4) and (2, 7)

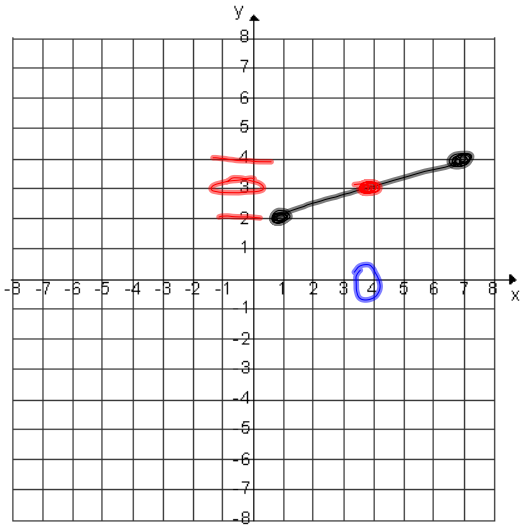
$$D = \sqrt{\Delta x^2 + \Delta y^2}$$

$$= \sqrt{1^2 + 3^2}$$

$$\sqrt{1+9}$$

$$\sqrt{10} \approx 3.2$$

midpoint



$$\text{Midpoint} = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$$

Find the midpoint of

(-2, 8) and (4, 18)

$$\text{midpoint} = \left(\frac{-2+4}{2}, \frac{8+18}{2}\right)$$

$$(3, 13)$$

11-5-13

4th Trig

Slope FIRE

Rise with the wise (y)

AND

Run to the exit (x)

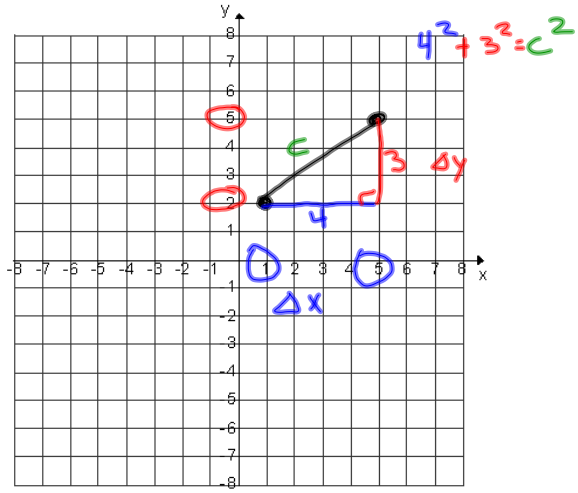
$$\text{Slope} = \frac{\Delta y}{\Delta x}$$

Find the slope between (2, 3) and (4, 13).

$$\text{Slope} = \frac{\Delta y}{\Delta x} = \frac{13-3}{4-2} = \frac{10}{2} = 5$$

Find the slope between (-2, -6) and (2, 6).

$$\text{Slope} = \frac{\Delta y}{\Delta x} = \frac{6--6}{2--2} = \frac{12}{4} = 3$$



$$\text{Distance} = \sqrt{\Delta x^2 + \Delta y^2}$$

Find the distance from

(1,6) to (5,10)

$$D = \sqrt{\Delta x^2 + \Delta y^2}$$

$$\sqrt{4^2 + 4^2}$$

$$\sqrt{32}$$

$$\approx 5.7$$

Find the distance from

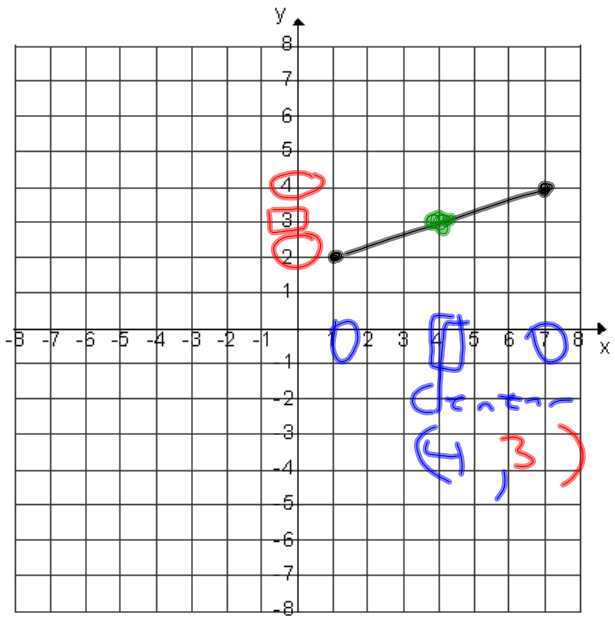
(-2,-1) to (1,4)

$$D = \sqrt{\Delta x^2 + \Delta y^2}$$

$$= \sqrt{3^2 + 5^2}$$

$$\sqrt{34}$$

$$\approx 5.8$$



$$\text{Midpoint} = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

Find the midpoint of $(1, 6)$ and $(8, 10)$

$$\text{Midpoint} = \left(\frac{1+8}{2}, \frac{6+10}{2} \right)$$

$$\left(\frac{9}{2}, \frac{16}{2} \right)$$

$$(4.5, 8)$$