Please find the distance, midpoint, and slope between the following points:

$$(-5,6) \text{ and } (1,-2)$$

$$d = \sqrt{(x_{1} - x_{2})^{2} + (y_{1} - y_{2})^{2}}$$

$$\text{Midpoint} : \left(\frac{x_{1} + x_{2}}{2}, \frac{y_{1} + y_{2}}{2}\right)$$

$$Slope : \frac{y_{2} - y_{1}}{x_{2} - x_{1}}$$

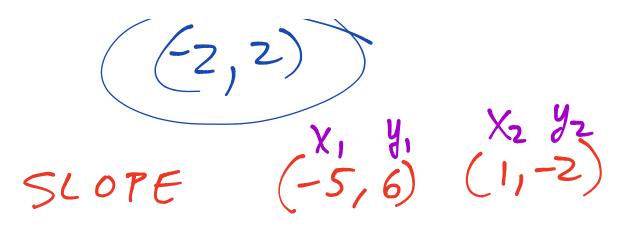
$$(-5, 6) \quad (1, -2)$$

$$d = \sqrt{(x_{1} - x_{2})^{2} + (y_{1} - y_{3})^{2}}$$

$$d = \sqrt{(-5 - 1)^{2} + (6 - 2)^{2}}$$

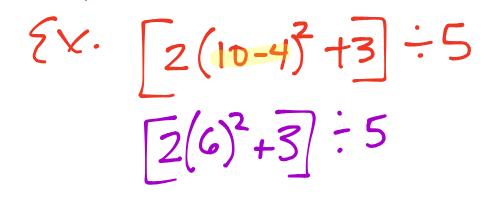
 $d = \sqrt{(-6)^2 + (8)^2}$ d=136+64  $a = \sqrt{100}$ d=10

(-5,6) (1,-2) Midpoint  $\left(\begin{array}{c} \chi_1 + \chi_2 \\ \hline \end{array}, \begin{array}{c} y_1 + y_2 \\ \hline \end{array}\right)$ -5+1, 6+-2)  $\begin{pmatrix} -4 \\ 2 \end{pmatrix}, \frac{4}{2}$ 



 $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-2 - 6}{1 - -5} = \frac{-8}{6}$  $\left(\begin{array}{c} -4\\ -3\end{array}\right)$  reduce

9/29 How I use order of operations (Pemdas)?



$$\begin{bmatrix} 2 \cdot 36 + 3 \end{bmatrix} \stackrel{?}{:} 5 \\ \begin{bmatrix} 72 + 3 \\ - 5 \end{bmatrix} \stackrel{?}{:} 5 \\ 15 \end{bmatrix}$$
  
Ex. Svaluate  $2^3 + 2(-4)(-3)$   
 $(-3)^2 - 5$   
 $= \frac{8 + 2(-4)(-3)}{(-3)^2 - 5}$   
 $= \frac{8 + 2(-4)(-3)}{(-3)^2 - 5}$   
 $= \frac{10(-4)(-3)}{-14}$   
 $= \frac{10(-4)(-3)}{-14}$   
 $= \frac{8 + 2(-4)(-3)}{-14}$   
 $= \frac{8 + 2(-4)(-3)}{-14}$   
 $= \frac{8 + 2(-4)(-3)}{-14}$   
 $= \frac{8 + 24}{-14}$   
 $= \frac{120}{-14}$   
 $= \frac{120}{-14}$   
 $= \frac{120}{-14}$   
 $= \frac{120}{-14}$   
 $= \frac{120}{-14}$ 

= 8+24 9-5 = <u>32</u> - <u>4</u>8 Ex. Evaluate  $[384-3(7-2)^3]$ :3 384-3.53 = 3 [384-3.125]:-3 (384-375):3 9:3

Evaluate expressionis  $\chi^2 - y(\chi_{ty})$  if  $\chi = 8$  and  $\chi^2 - y(\chi_{ty})$  if  $\chi = 1.5$ 82-15(8+1.5) 87-1.5(9.5)  $64 - 14.25 \neq 49.75$ Ex.  $\frac{8xy+z^{3}}{y^{2}+5}$  if x=5, y=-2

