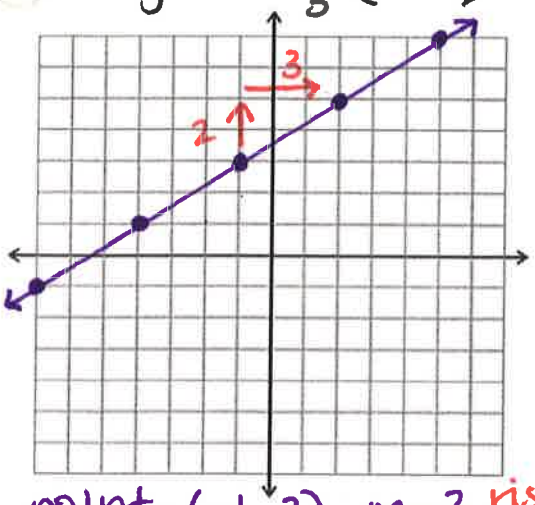
Definition: SEE FOLDABLE ☺

2.2 Point Slope Form Guided Notes

Ex 1. $y-3=\frac{2}{3}(x+1)$



point: $(-1,3)$ $m=\frac{2}{3}$ $\frac{\text{rise}}{\text{run}}$

Ex 2. Write an eqt. in point slope form passing through $(2,-4)$ & a slope of $\frac{1}{2}$

point: $(\overset{x_1}{2},\overset{y_1}{-4})$ $m=\frac{1}{2}$

$y-y_1=m(x-x_1)$

$\therefore \boxed{y-(-4)=1/2(x-2)}$

Ex 3. Write an eqt. in point slope form passing through $(\underset{x_1}{-4},\underset{y_1}{1})$ & $(\underset{x_2}{2},\underset{y_2}{3})$ *Find slope first!

$m=\frac{y_1-y_2}{x_1-x_2}=\frac{1-3}{-4-2}=\frac{-2}{-6}=\frac{1}{3}$

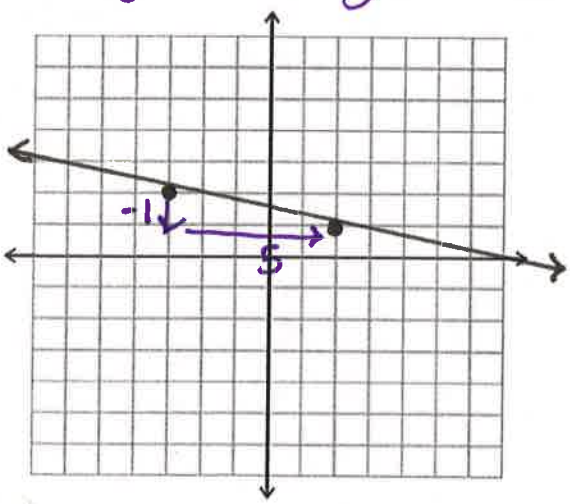
*Now pick either point to plug in ☺

$y-1=\frac{1}{3}(x+4)$

$y-3=\frac{1}{3}(x-2)$

Writing Equations given a graph

Ex 3. $y+3=-\frac{1}{5}(x-2)$



Ex 4. $y+5=\frac{5}{2}(x+2)$