Equations in Point-Slope Form
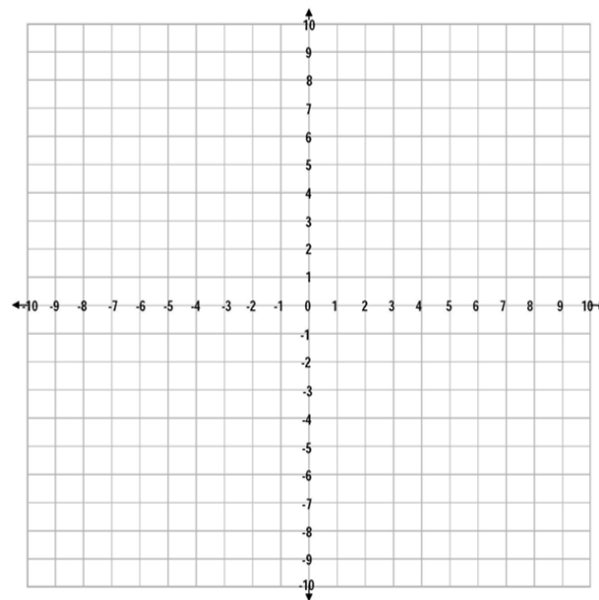
* point slope formula

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

1) find the slope $m = \frac{y_1 - y_2}{x_1 - x_2}$
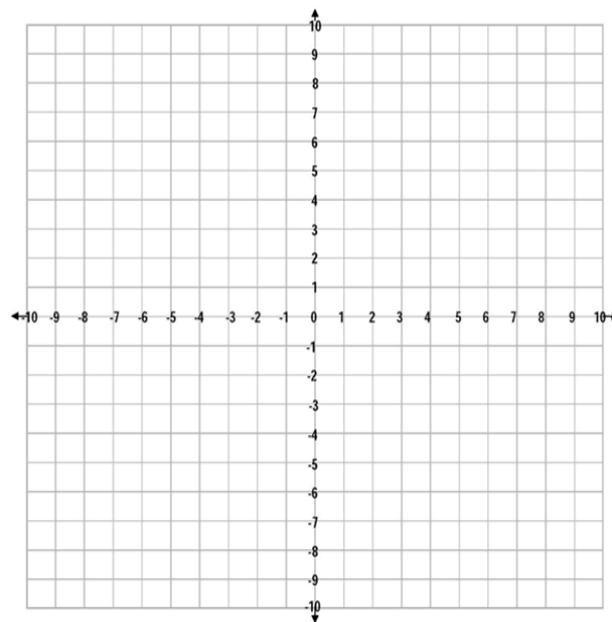2) put m and point into pt-slope formula
3) re-write in $y = mx + b$

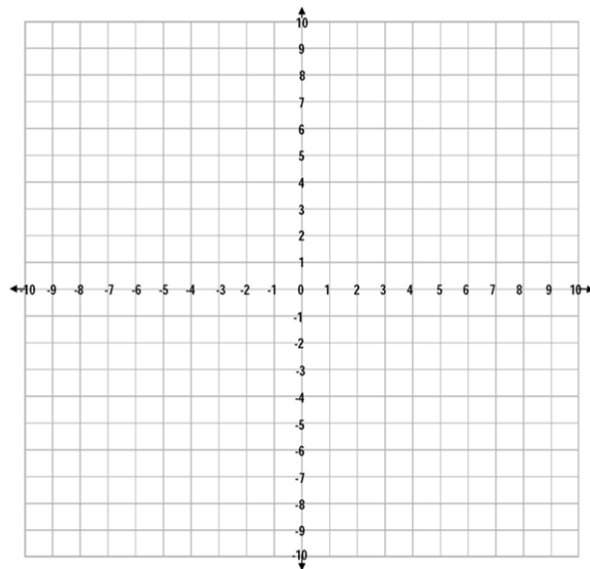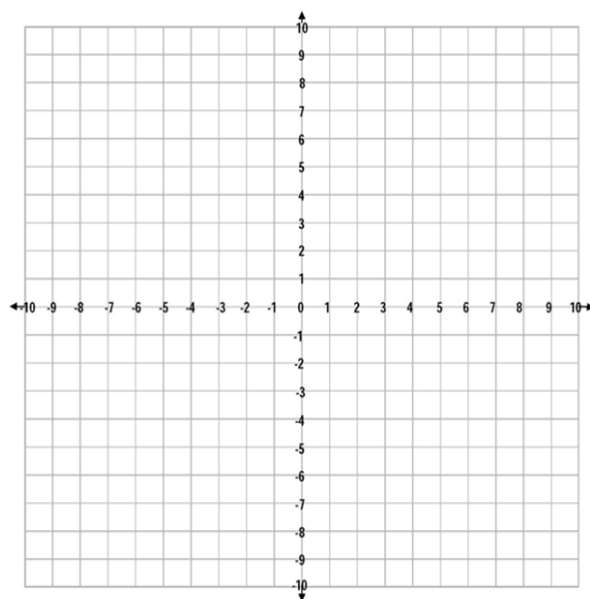**Write the equation of the line and sketch the graph**

Ex1) m= -2 and (-1,4)

Ex2) $m = -\frac{1}{2}$ and $(10, -3)$

Ex3) $(-1,3)$ and $(1,1)$

Ex4) $(3,2)$ and $(4,5)$

Ex5) $f(3) = -1$ and $f(-3) = -5$