

## Graphing Lines in Point-Slope Form

Given a linear equation in point slope form,  $y = m(x - x_1) + y_1$ , a complete graph includes:

1. Identify the slope (m) and the point (x<sub>1</sub>, y<sub>1</sub>).

This is your reasoning/justification for the graph you are drawing.

2. Completely label the graph with scale and label the axes.

3. Plot the point. (\*must be consistent & precise) (\*draw if necessary)

4. Use the slope to plot at least one other point.

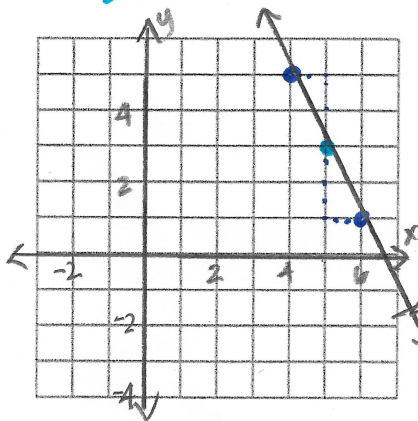
5. Use a ruler to draw the line. Be sure to draw arrows.  
(assuming graph is continuous)

\*Verify slope is consistent along entire line!!\*

Graph each line. Identify the slope and point. Completely label the graph.

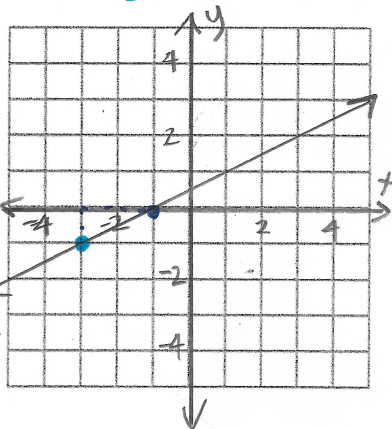
1.  $y = -2(x - 5) + 3$

$m = -2$   
through point: (5, 3)



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

$m = \frac{1}{2}$   
through: (-3, -1)



3.  $y = -\frac{4}{3}(x + 1) + 6$

$m = -\frac{4}{3}$   
through: (-1, 6)

