

AA Notes – Section 5.4 – Graphing from Point–Slope Form

Point–Slope Form: $y - y_1 = m(x - x_1)$ where m is the slope and the point (x_1, y_1)

To graph a line from Point Slope Form, you need a point and the slope. Using the equation, identify the slope and the point.

Watch your signs when identifying the point. *Hint:* when you write your point, change the sign to the opposite of what it reads in the equation.

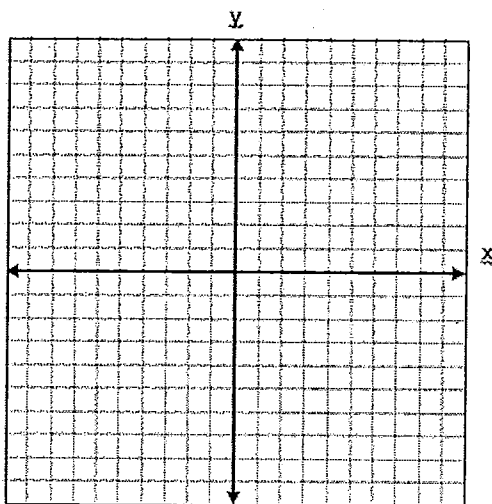
Once you have identified your slope and point, **PLOT THE POINT FIRST**, then count your slope ($\frac{\text{rise}}{\text{run}}$) from that point.

Examples:

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

$m =$

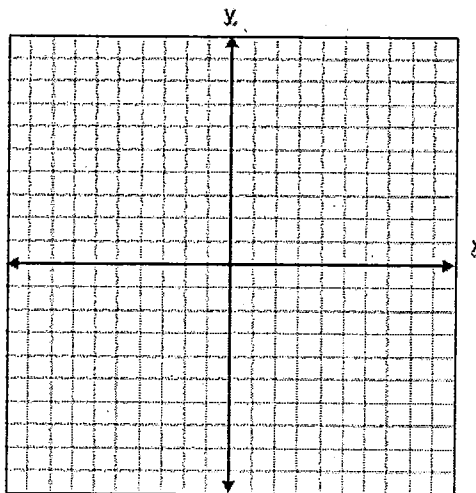
point (x_1, y_1)



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

$m =$

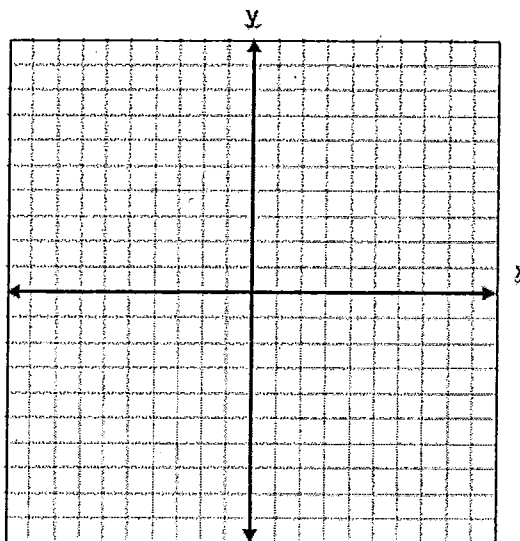
point (x_1, y_1)



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

m =

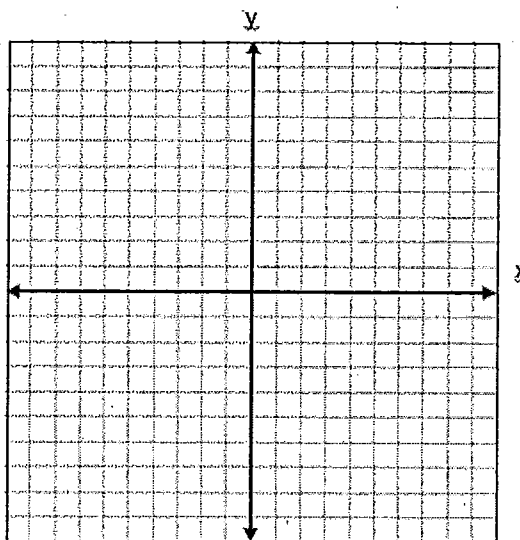
point (x_1, y_1)



4. $y - 2 = 4(x - 1)$

m =

point (x_1, y_1)



5. $y + 5 = \frac{2}{3}(x - 0)$

m =

point (x_1, y_1)

