



4. Write the equation of a line with a slope of  $\frac{4}{5}$  and that passes through the point  $(-15, 9)$ .

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

$$y - 9 = \frac{4}{5}(x - (-15)) \rightarrow y - 9 = \frac{4}{5}(x + 15)$$

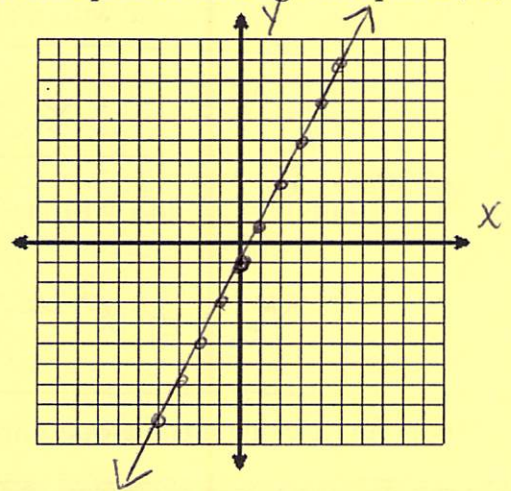
5. Write and graph the equation of a line with a slope of 2 and that passes through the point  $(3, 5)$ .

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

$$y - 5 = 2(x - 3)$$

$$y - 5 = 2x - 6$$

$$\frac{y - 5 + 5}{+5} = \frac{2x - 6 + 5}{+5} \rightarrow y = 2x - 1$$



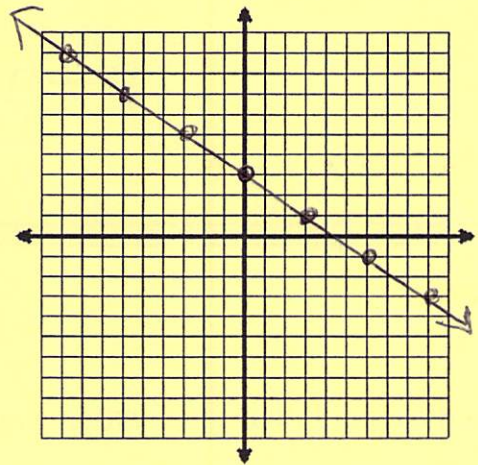
6. Write and graph the equation of a line with a slope of  $-\frac{2}{3}$  and that passes through the point  $(-6, 7)$ .

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

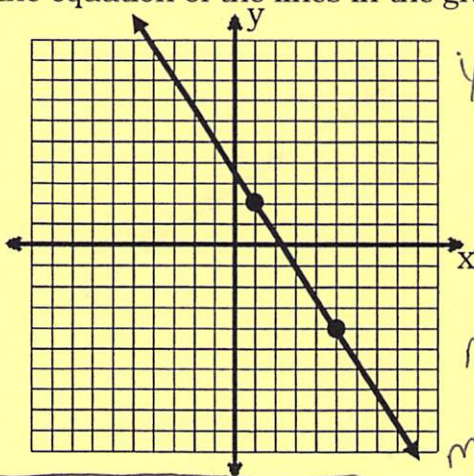
$$y - 7 = -\frac{2}{3}(x + 6)$$

$$y - 7 = -\frac{2}{3}x - 4$$

$$\frac{y - 7 + 7}{+7} = \frac{-\frac{2}{3}x - 4 + 7}{+7} \rightarrow y = -\frac{2}{3}x + 3$$



Write the equation of the lines in the graphs below in point-slope form.



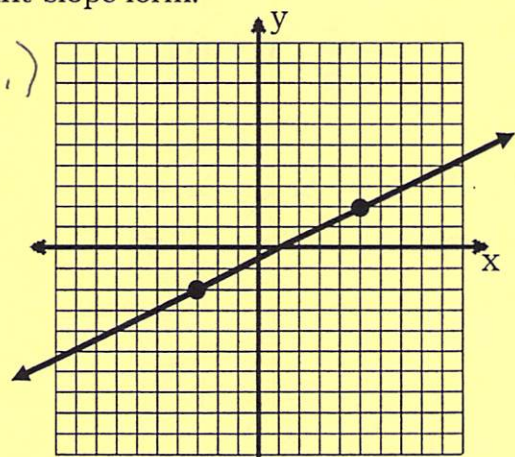
$$y - y_1 = m(x - x_1)$$

$$m = -\frac{6}{4}$$

$$m = -\frac{3}{2}$$

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

$$\begin{matrix} (1, 2) \\ x \quad y \end{matrix}$$



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

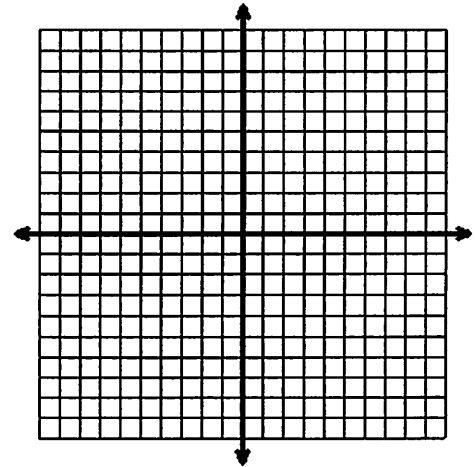
$$y + 2 = \frac{1}{2}(x + 3)$$

1 What is the  $y$ -intercept of the line  $y+3=4(x+3)$ ?

2. Is the point  $(4, 11)$  on the line of the equation  $y-5=2(x-1)$ ?

3. Write the equation in *slope-intercept form* ( $y=mx+b$ ) of a line that passes through the point  $(-3, -5)$  and has the same slope as  $y+2=7(x+3)$ .

4. Write the equation of a line with a slope of ~~4/3~~ and that passes through the point ~~(-2, 1)~~.



5. Write the equation of the line in the graph below in **point-slope form** and **slope-intercept form**.

