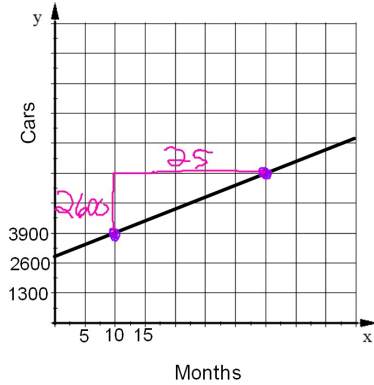


1. Find the rate of change.



$$\frac{6500 - 3900 \text{ Cars}}{35 - 10 \text{ months}} = \frac{2600 \text{ Cars}}{25 \text{ months}}$$

$$= 104 \text{ Cars/month}$$

2. Write the equation of the line that passes through each pair of points in both Point-Slope and Slope-Intercept Forms.

$(-6, -7)$ and $(12, -1)$

$$y = mx + b$$

$$\frac{-7 - (-1)}{-6 - 12} = \frac{1}{3}$$

$$y = \frac{1}{3}x + -5$$

slope = 1/3

$-5 = b$

point-slope
 $y + 1 = \frac{1}{3}(x - 12)$

3. Write the equation of the line that passes through each pair of points

a) $(-5, 9)$ and $(-5, 2)$

$$\frac{9 - 2}{-5 - (-5)} = \frac{7}{0}$$

$x = -5$

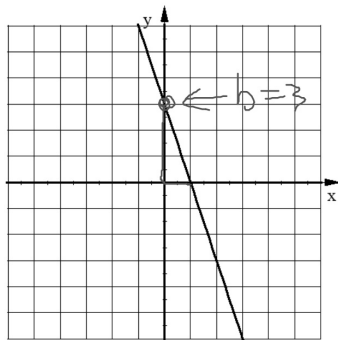
b) $(-3, 1)$ and $(1, 1)$

$$m = \frac{0}{4} = 0$$

$y = 1$

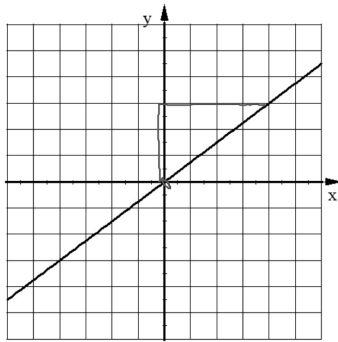
For 4 to 7 write the equation of each line.

4.



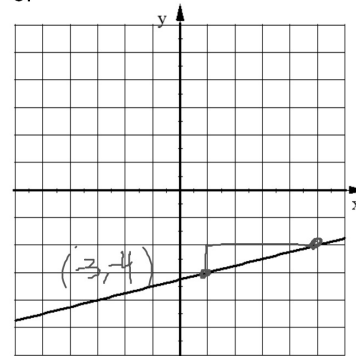
$$y = -3x + 3$$

5.



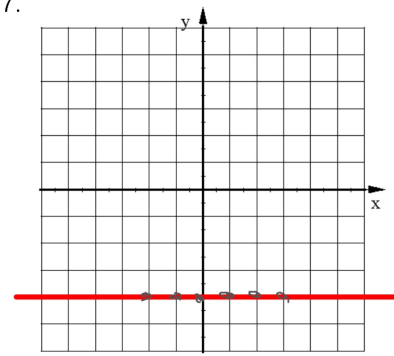
$$y = \frac{3}{4}x$$

6.



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

7.



$$y = mx + b$$

$$y = 0x - 4$$

$y = -4$