

3.5

Graphing a Line Using Intercepts

- x - intercept
- y - intercept

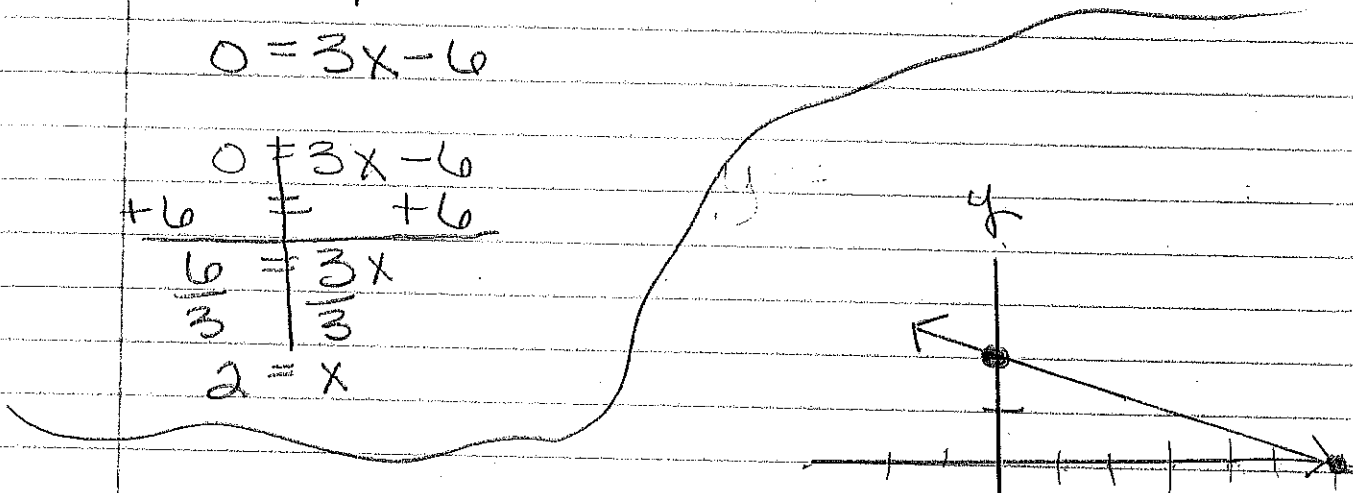
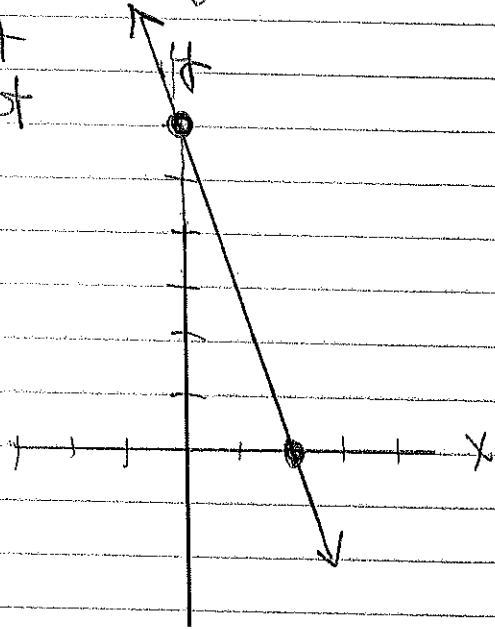
$$y = 3x - 6$$

y-intercept:
-6

to find x-intercept
make y 0.

$$0 = 3x - 6$$

$$\begin{array}{r} 0 = 3x - 6 \\ +6 \quad = \quad +6 \\ \hline 6 = 3x \\ \frac{6}{3} = \frac{3x}{3} \\ 2 = x \end{array}$$



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

y-intercept:
2

x-intercept

$$0 = -\frac{1}{3}x + 2$$

$$\frac{1}{3}x = 2$$

$$\frac{3}{1} \cdot \frac{1}{3}x = 2 \cdot \frac{3}{1} = 6$$

$$x = 6$$