

Graphing Standard Form

What are
intercepts?

How do you solve for the
intercepts given the
EQUATION of a line?

Graphing Standard Form

An intercept is: Where the graph crosses an axis.

Find the x - and y -intercepts of the line

$$4x - 9y = -12$$

$$\text{let } y = 0$$

$$4x - 9(0) = -12$$

$$\frac{4x}{4} = \frac{-12}{4}$$

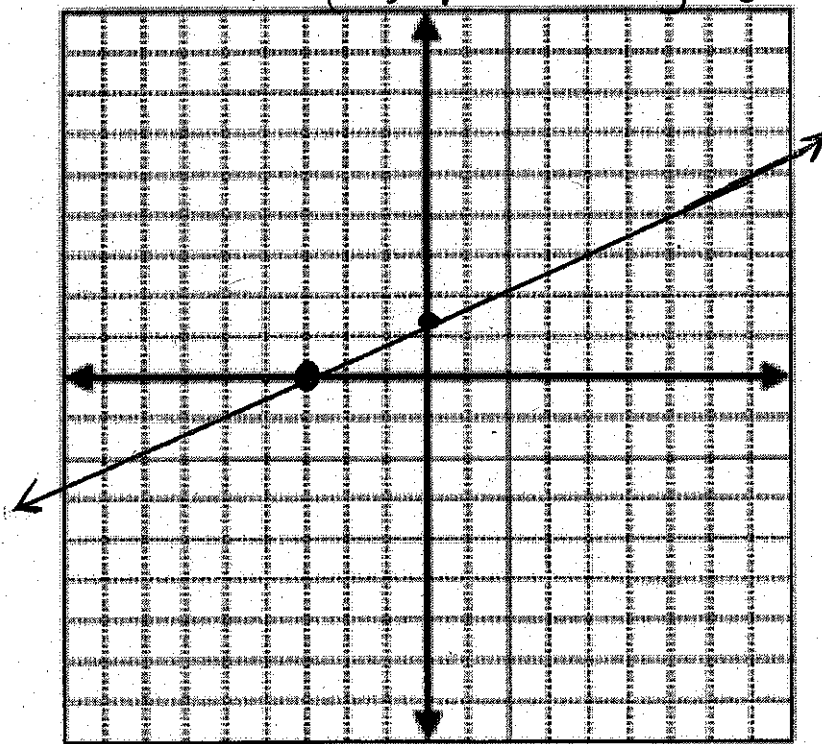
$$x = -3 \quad (-3, 0)$$

$$\text{let } x = 0$$

$$4(0) - 9y = -12$$

$$\frac{-9y}{-9} = \frac{-12}{-9}$$

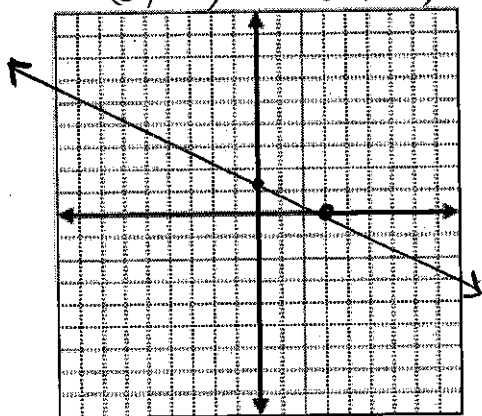
$$y = \frac{4}{3}$$



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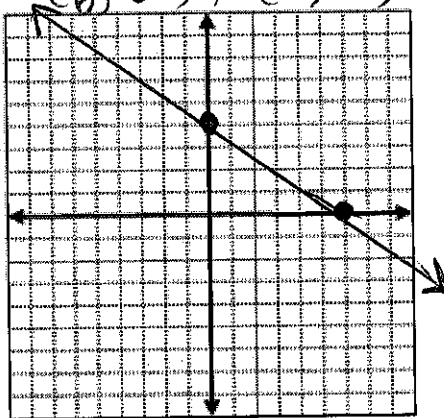
$$2x + 5y = 6$$

$$\begin{array}{l} \text{let } y=0 \\ 2x+5(0)=6 \\ 2x=6 \\ x=3 \\ (3, 0) \end{array} \quad \left\{ \begin{array}{l} \text{let } x=0 \\ 2(0)+5y=6 \\ 5y=6 \\ y=\frac{6}{5} \\ (0, \frac{6}{5}) \end{array} \right.$$



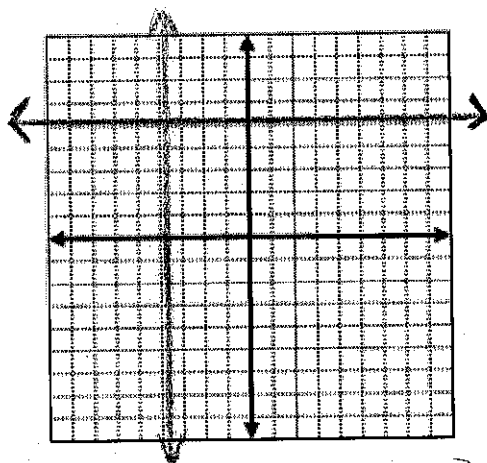
$$2x + 3y = 12$$

$$\begin{array}{l} \text{let } y=0 \\ 2x=12 \\ \frac{2x}{2}=\frac{12}{2} \\ x=6 \\ (6, 0) \end{array} \quad \left\{ \begin{array}{l} \text{let } x=0 \\ 3y=12 \\ \frac{3y}{3}=\frac{12}{3} \\ y=4 \\ (0, 4) \end{array} \right.$$



$$x = -4$$

$$y = 5$$



$$3x + 4y = 8$$

$$\begin{array}{l} \text{let } y=0 \\ 3x=8 \\ x=\frac{8}{3} \\ (2\frac{2}{3}, 0) \end{array} \quad \left\{ \begin{array}{l} \text{let } x=0 \\ 4y=8 \\ y=2 \\ (0, 2) \end{array} \right.$$

