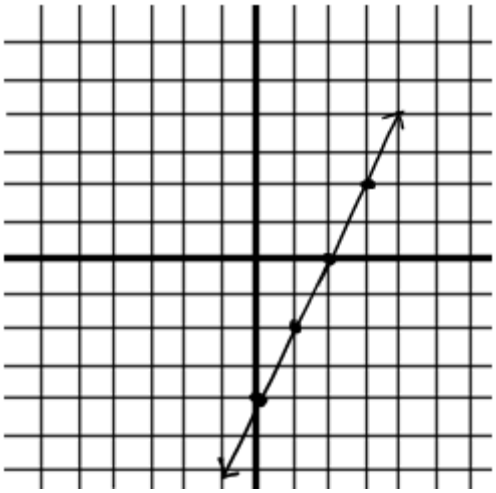
Graphing Lines using Intercept Points

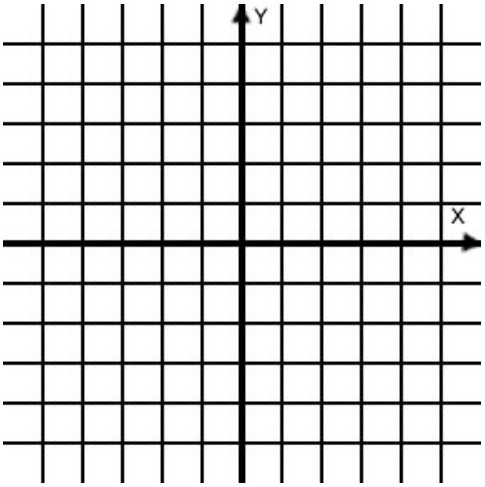
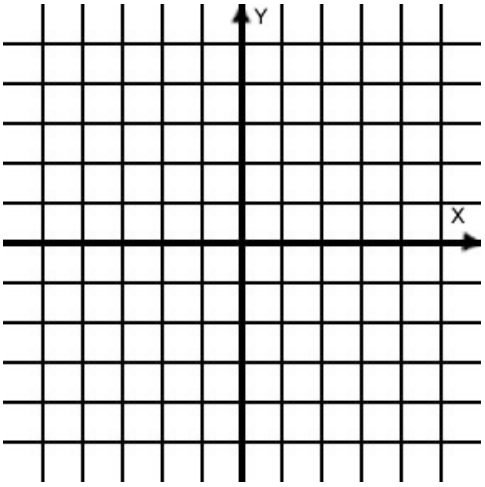
Consider the equation: $4x-2y=8$ and the ordered pairs found earlier that were solutions to this equation. Plot (graph) these points. (3,2) (2,0) (1,-2) (0,-4)



The graph of a linear equation in two variables is a **straight line**. Because that line has infinite points and each point on that line is a solution to the equation, there are an infinite number of solutions to the linear equation in two variables.

The point where the equation crosses the x-axis is called the **x-intercept point. It has the form (x , 0).** Here it is (2,0).

The point where the equation crosses the y-axis is called the **y-intercept point. It has the form (0 , y).** Here it is (0,-4).

Graph: $y=3x-1$ Identify the x-intercept (, 0) Identify the y-intercept (0 ,) Identify one other point. (,) Plot the points. Draw the graph.	
Graph: $x=3$ Identify the x-intercept (, 0) Identify the y-intercept (0 ,) Identify one other point. (,) Plot the points. Draw the graph. $x=C$ a vertical line at $(C,0)$	

Graph: $y = -2$

Identify the x-intercept (, 0)

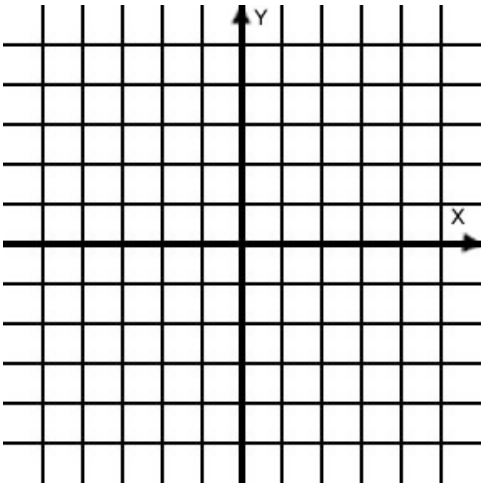
Identify the y-intercept (0 ,)

Identify one other point. (,)

Plot the points.

Draw the graph.

$y = C$ a horizontal line at $(0, C)$



Graph: $-x + 2y = 4$

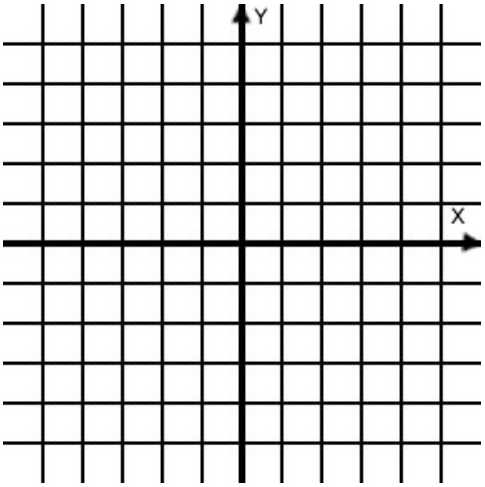
Identify the x-intercept (, 0)

Identify the y-intercept (0 ,)

Identify one other point. (,)

Plot the points.

Draw the graph.



Graph: $y = -\frac{1}{2}x - 1$

Identify the x-intercept (, 0)

Identify the y-intercept (0 ,)

Identify one other point. (,)

Plot the points.

Draw the graph.