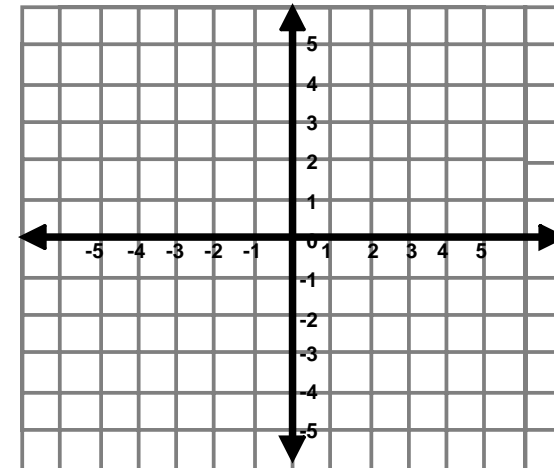


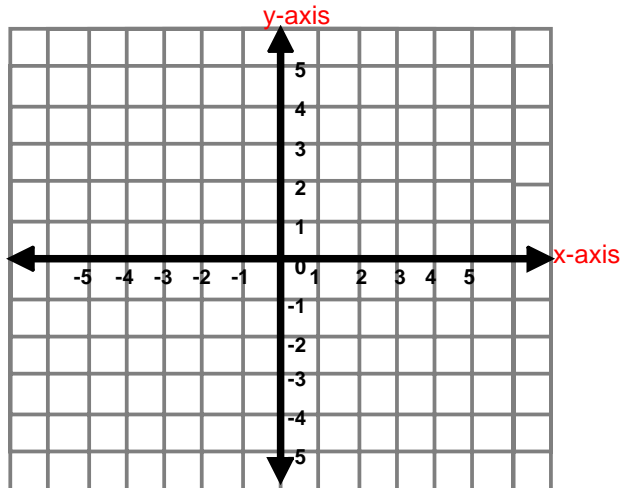
# 8.2

## POINTS, LINES, AND THEIR GRAPHS

### COORDINATE PLANE



### PLOTTING POINTS



- A(2,4)**
- B(3,-3)**
- C(-2,-5)**
- D(4,0)**
- E(0,6)**

### Location, Location, Location...

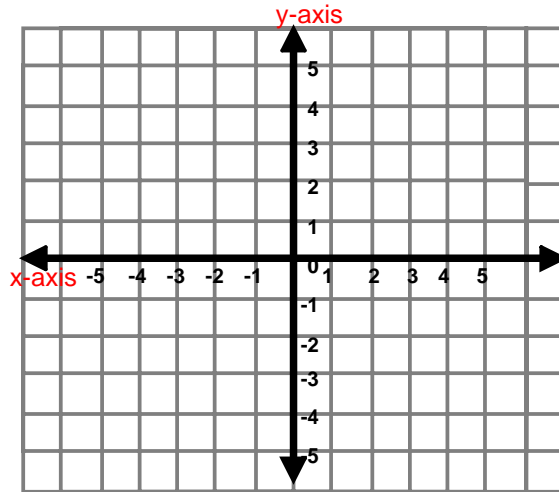
Name the quadrant, quadrants, or axis where you would find...

- |                 |  |
|-----------------|--|
| 1) (5, -3)      | 5) Points with an x-coordinate of 2    |
| 2) (0, 2)       | 6) Points with a y-coordinate of -3    |
| 3) (-3, -7)     | 7) Points with a negative x-coordinate |
| 4) (8000, 4000) | 8) Points with a negative y-coordinate |

## Graphing Lines by Plotting Points

1)  $2x + y = 5$

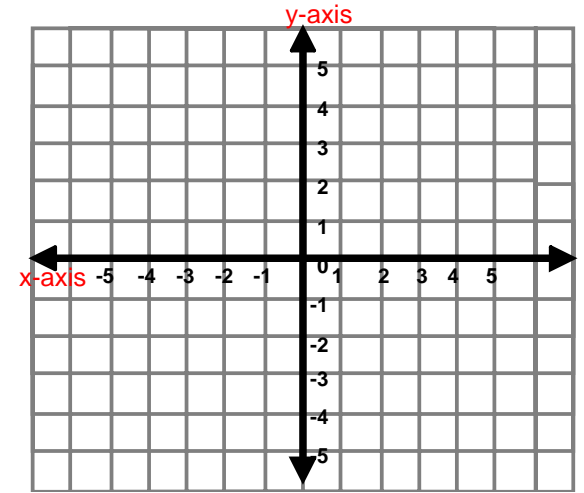
x	y
---	---



## Graphing Lines by Plotting Points

2)  $x + 2y = 4$

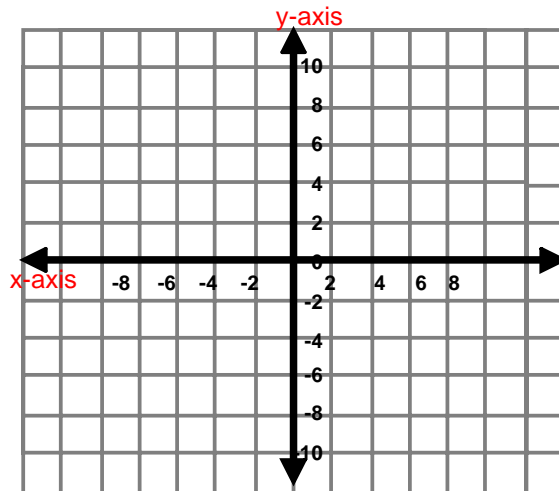
x	y
---	---



## Graphing Lines by Plotting Points

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

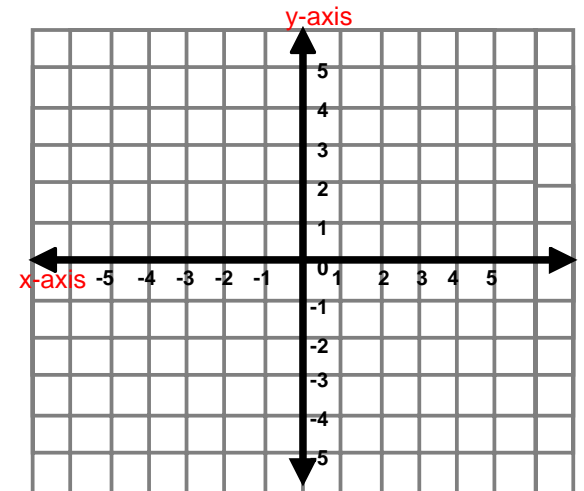
x	y
---	---



## Graphing Lines

4)  $y = 4$

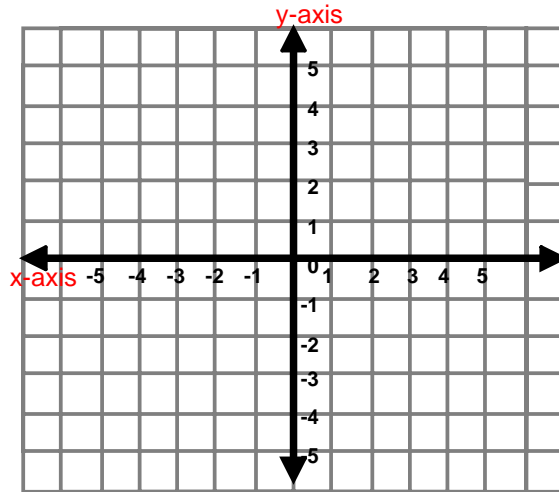
x	y
---	---



# Graphing Lines

5)  $x = 3$

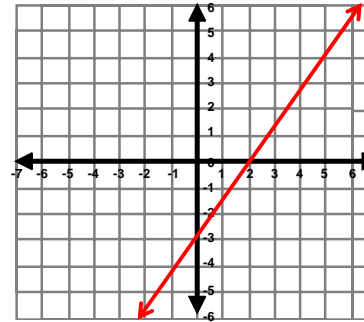
$x$	$y$
-----	-----



# Graphings Using Intercepts

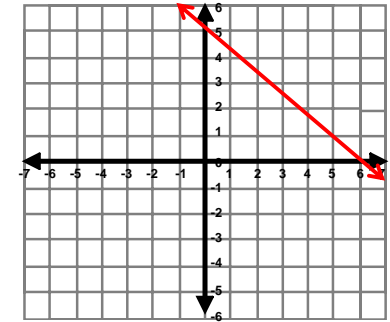
**x-intercept** - the x-coordinate of a point where the graph crosses the x-axis

**y-intercept** - the y-coordinate of a point where the graph crosses the y-axis



x-intercept:  
y-intercept

coordinate:  
coodiante:



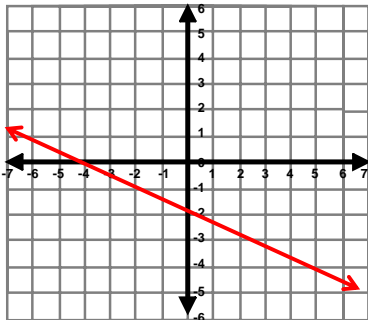
x-intercept:  
y-intercept

coordinate:  
coodiante:

# Graphings Using Intercepts

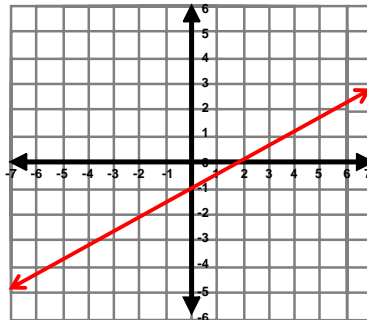
**x-intercept** - the x-coordinate of a point where the graph crosses the x-axis

**y-intercept** - the y-coordinate of a point where the graph crosses the y-axis



x-intercept:  
y-intercept

coordinate:  
coodiante:



x-intercept:  
y-intercept

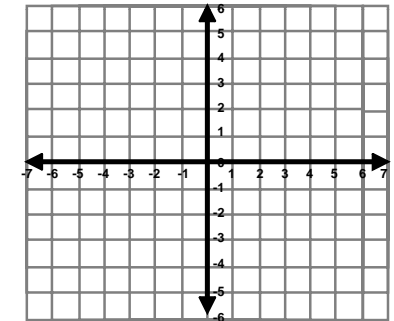
coordinate:  
coodiante:

# Finding the Intercepts of a Line

$$x - 3y = 3$$

**x-intercept**

Plug-in  $y=0$  into the equation and solve for  $x$ .



**y-intercept**

Plug-in  $x=0$  into the equation and solve for  $y$ .

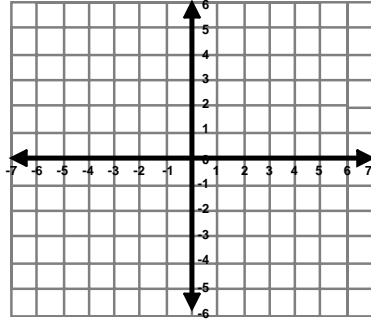
Graph the equation using the intercepts.

## Practice

1)  $4x - 6y = 12$

### x-intercept

Plug-in  $y=0$  into the equation and solve for  $x$ .



Graph the equation using the intercepts.

### y-intercept

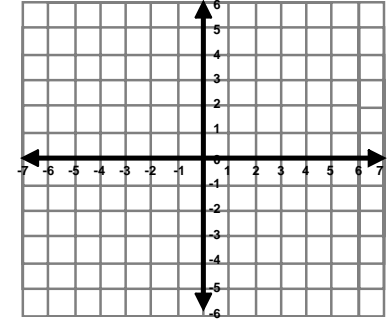
Plug-in  $x=0$  into the equation and solve for  $y$ .

## Practice

2)  $2x - 3y = 36$

### x-intercept

Plug-in  $y=0$  into the equation and solve for  $x$ .



Graph the equation using the intercepts.

### y-intercept

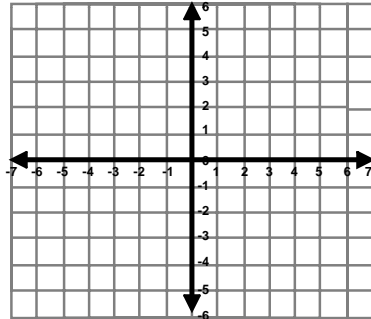
Plug-in  $x=0$  into the equation and solve for  $y$ .

## Practice

3)  $y = 2x - 4$

### x-intercept

Plug-in  $y=0$  into the equation and solve for  $x$ .



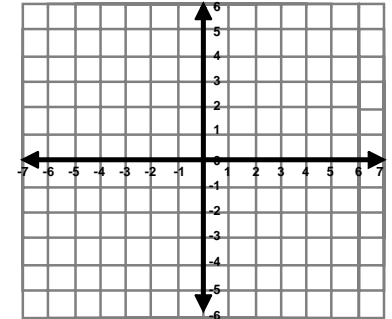
Graph the equation using the intercepts.

### y-intercept

Plug-in  $x=0$  into the equation and solve for  $y$ .

## Practice

4)  $x + 2y = 4$



Graph the equation using the intercepts.