Algebra Review

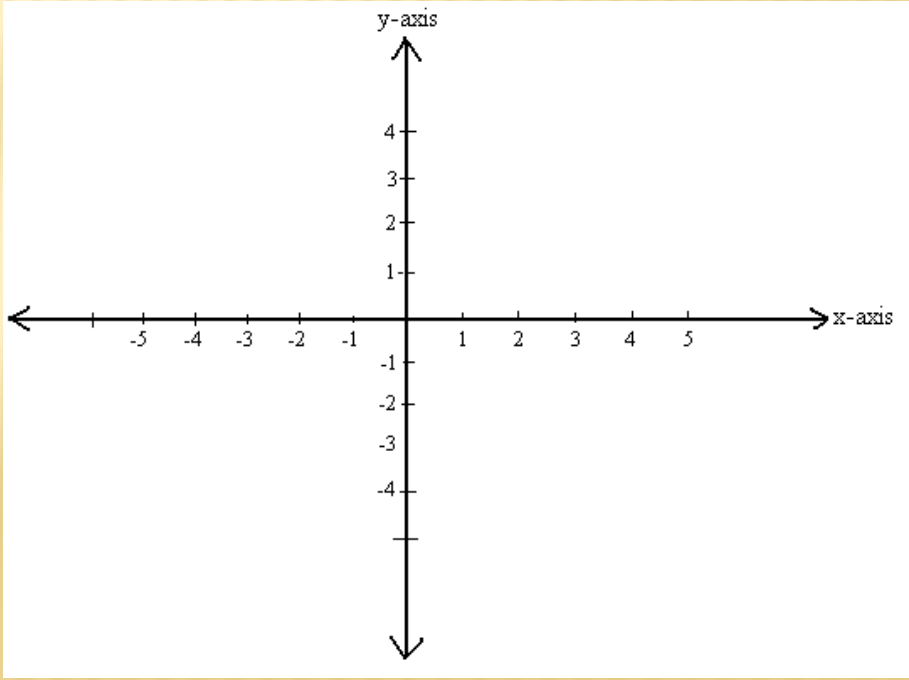
# COORDINATE SYSTEM: THE BASICS

**Objective**: Students will be able to demonstrate their ability to plot points on the Cartesian coordinate system

# THE (X,Y) COORDINATE SYSTEM

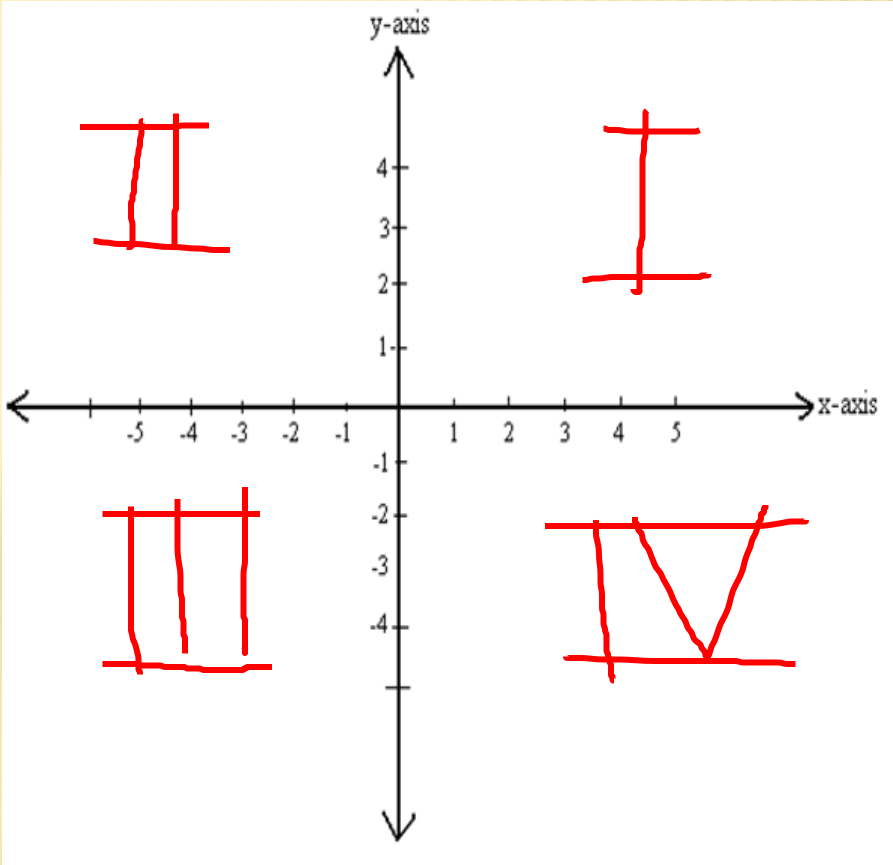
A Cartesian coordinate system, also known as rectangular coordinate system, can be used to plot points and graph lines.

The following is an example of rectangular coordinate system.



# THE (X,Y) COORDINATE SYSTEM

- Four Quadrants
  - In Quadrant I, both x and y are positive
  - In Quadrant II, x is negative and y is positive
  - In Quadrant III, both x and y are negative
  - In Quadrant IV, x is positive and y is negative

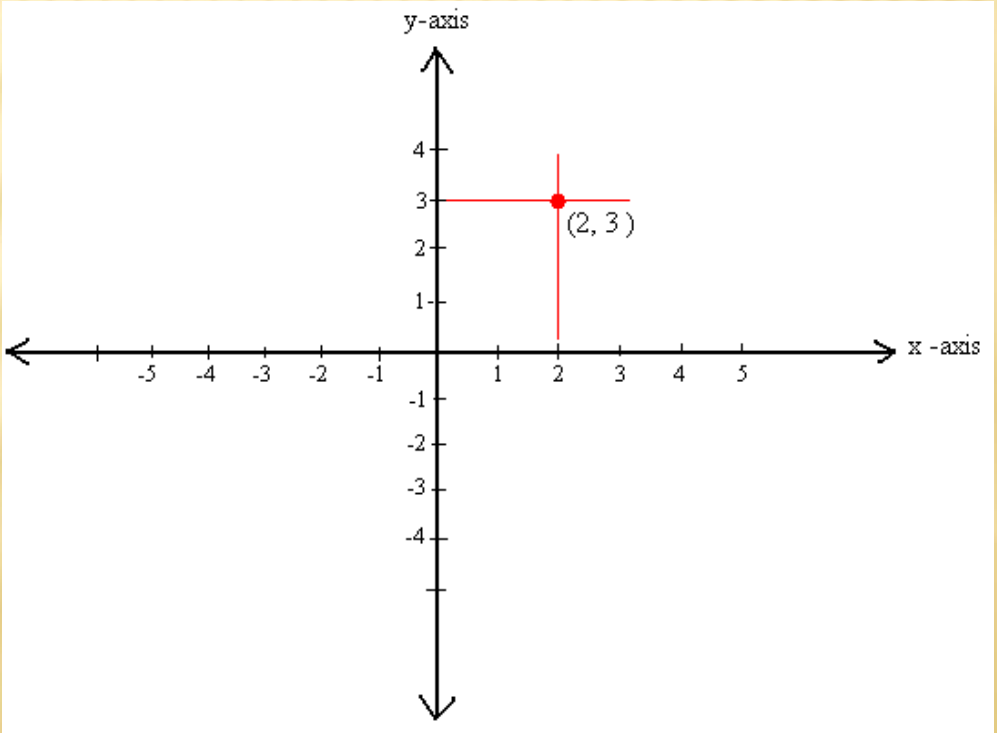


# HOW TO PLOT A POINT

- A point is represented by a pair of numbers (x,y).
- When given a point to plot, do the following:
  - Locate where each number is on the x and y-axis respectively.
  - For the x-axis number, draw (or imagine) a vertical line going through it.
  - For the y-axis, draw (or imagine) a horizontal line going through it.
  - The point occurs where the lines meet.

# TRY IT: PLOT (2,3)

- Note that this means that 2 is the x value and 3 is the y value.
- Now, locate 2 on the x-axis and 3 on the y-axis.
- Draw (or imagine) a vertical line through x = 2 and a horizontal line through y = 3. Where the lines meet is your point.
- End result:



# PLOTTING POINTS ACTIVITY