

# Chapter 4

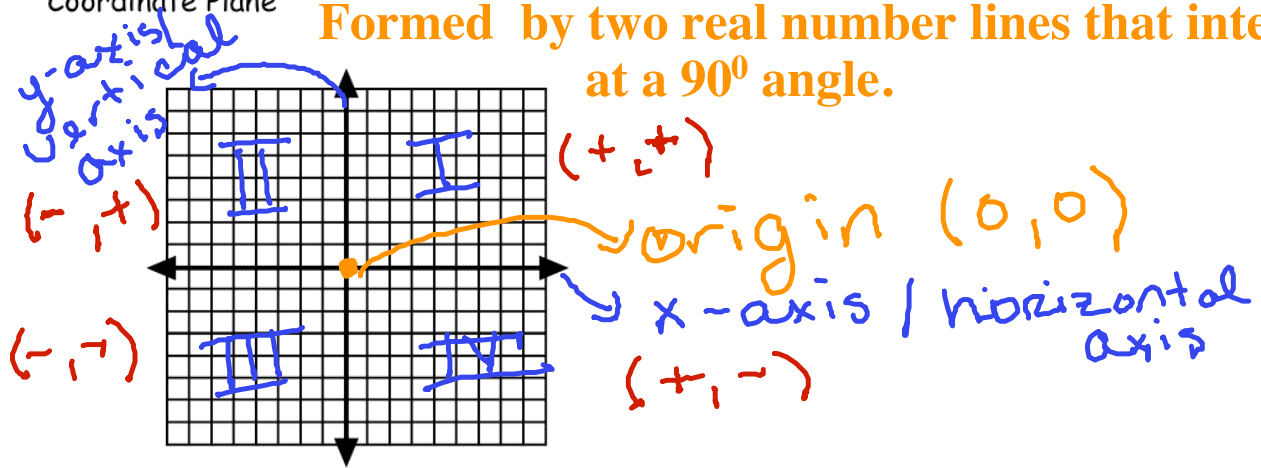
## Graphing Linear Equations and Functions

**Section 4.1 Coordinates and Scatter Plots**

**Graph = a point on a coordinate plane**

Coordinate Plane

**Formed by two real number lines that intersect at a 90° angle.**



Ordered Pair **Each point on a coordinate plane is shown by**

**(x,y)**

x-coordinate

y-coordinate

**1st # in an ordered pair**

**2nd # in an ordered pair**

Scatter Plot **used to represent data. Shows the relationship between two quantities**

**EXAMPLES**

1. Plot and label the following points:

**State its quadrant**  
**x-axis III y-axis II**

**I**  
A(2, 1)

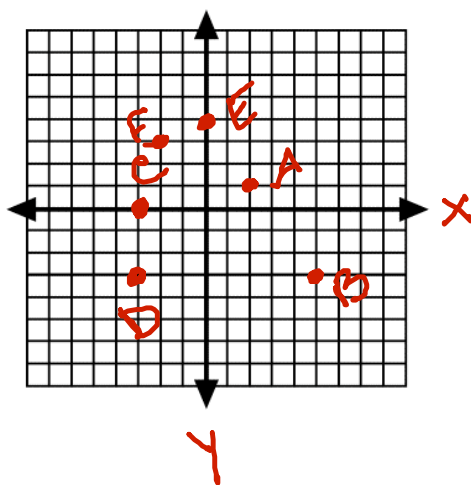
**III**  
B(5, -3)

**x-axis III**  
C(-3, 0)

**y-axis II**  
D(-2, -2)

E(0, 4)

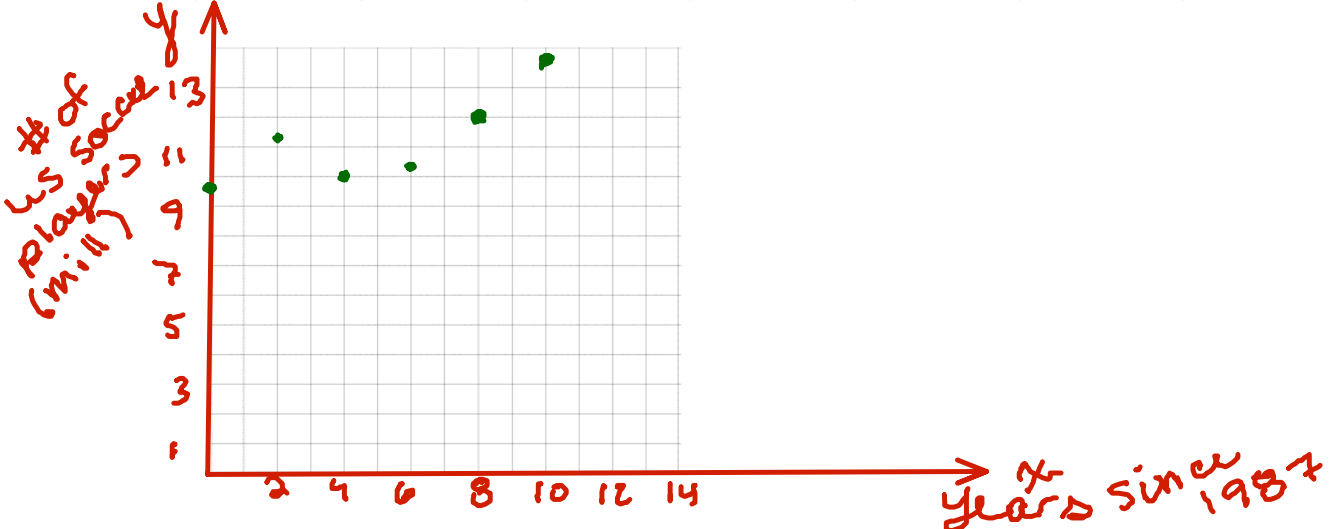
F(-2, 3)



- 1) label x & y axis
- 2) pattern of data on the axis
- 3) always start @ 0 \*

2. The number of U.S. citizens 7 years or older (in millions) who played soccer is shown below. Draw a scatter plot. Describe the pattern and predict the number of U.S. citizens who will play soccer in 2007.

Year	1987 $x=0$	1989 $x=2$	1991 $x=4$	1993 $x=6$	1995 $x=8$	1997 $x=10$
Number	9.8	11.2	10	10.3	12	13.7



3. The data below represent the weight and height of a male. Draw a scatter plot. At age 12, he was 63 inches tall. Predict his weight at age 12.

Age	Height (inches)	Weight (pounds)
5	50	78
10	60	112
15	67	135
25	70	150

