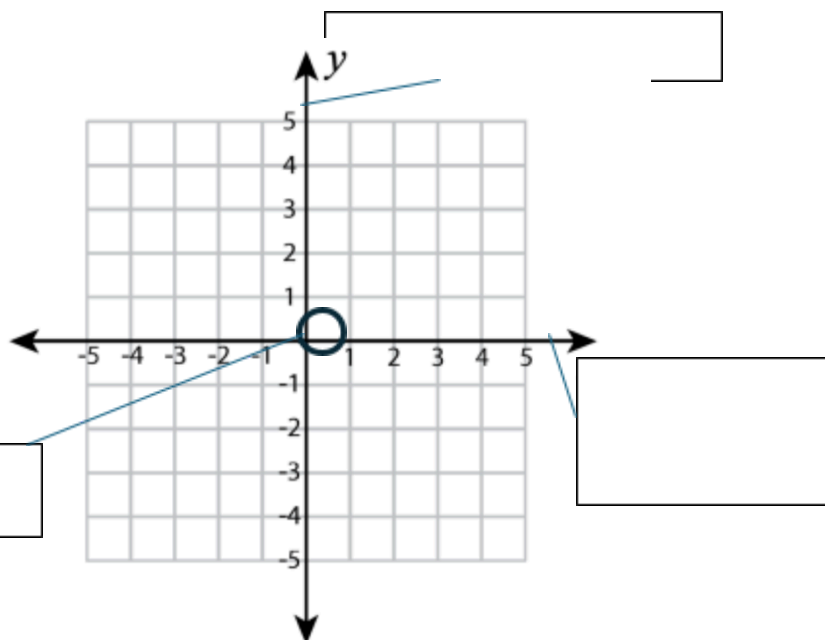


5.2 Graphing Coordinates

Label the graph with the following:

- X-axis
- Y-axis
- Origin
- Quadrant I
- Quadrant II
- Quadrant III
- Quadrant IV

**Grade 8 Review - Graph Basics**

A **graph** or coordinate system is made up of **TWO** real lines:

The **X AXIS** goes _____ and _____
(=horizontal axis)

The **Y AXIS** goes _____ and _____
(=vertical axis)

The point where the two axes (plural of axis) cross is called the _____ **(0,0)**

POSITIVE values of **x** will be to the _____

NEGATIVE values of **x** will be to the _____

POSITIVE values of **y** will be _____ **WARDS**

NEGATIVE values of **y** will be _____ **WARDS**

An ORDERED PAIR = A point on a graph with an **x-coordinate** and a **y-coordinate**. Basic form **(x, y)**

This gives us information about the _____ of the point on the **x-axis** and **y-axis** (plural = axes)

The position is RELATIVE to the _____

Ex. **SHOW (3, -4) on the graph above**

STEP 1: The **x** value is _____ and the **y** value is _____ Don't forget the signs!

STEP 2: This means the point will be...

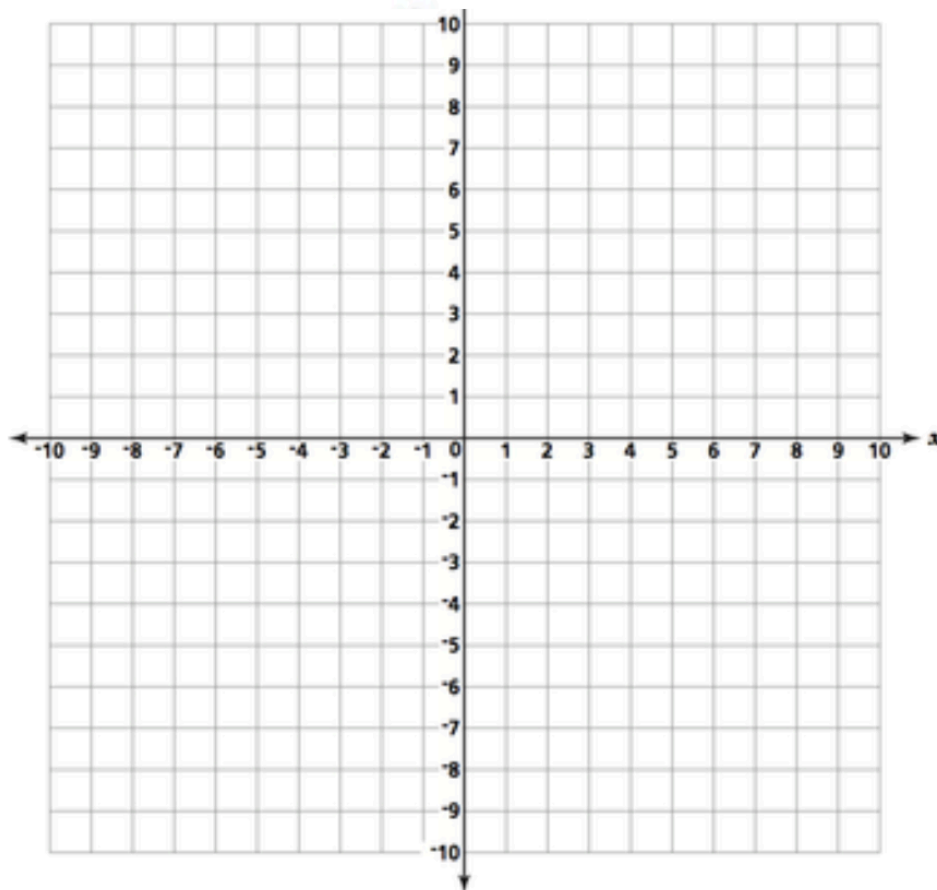
3 to the _____ of the origin AND _____ from the origin

Example 2: Plot and label the following points with their letters on the graph below:

- A. (2,3)
- B. (-5,4)
- C. (3,-6)
- D. (-7,7)
- E. (4,0)
- F. (0,9)
- G. (-8,0)
- H. (0,-2)
- I. (0,0)
- J. (9.5, 8.5)

Graphing Steps

- Start at the **ORIGIN**
- Determine the **DIRECTION** from the origin based on whether the x and y coordinates are each positive or negative.
- Count out the x-coordinate (x value)
- From there count out the y-coordinate (y value)



Which quadrant is each of the following in on the graph above?

A _____ B _____ C _____ D _____ E _____

F _____ G _____ H _____ I _____ J _____

CHALLENGE – How would you graph $(, -3)$?

Practice:

1. WRITE the coordinates of the labeled points on the graph below

H = (,)

K = (,)

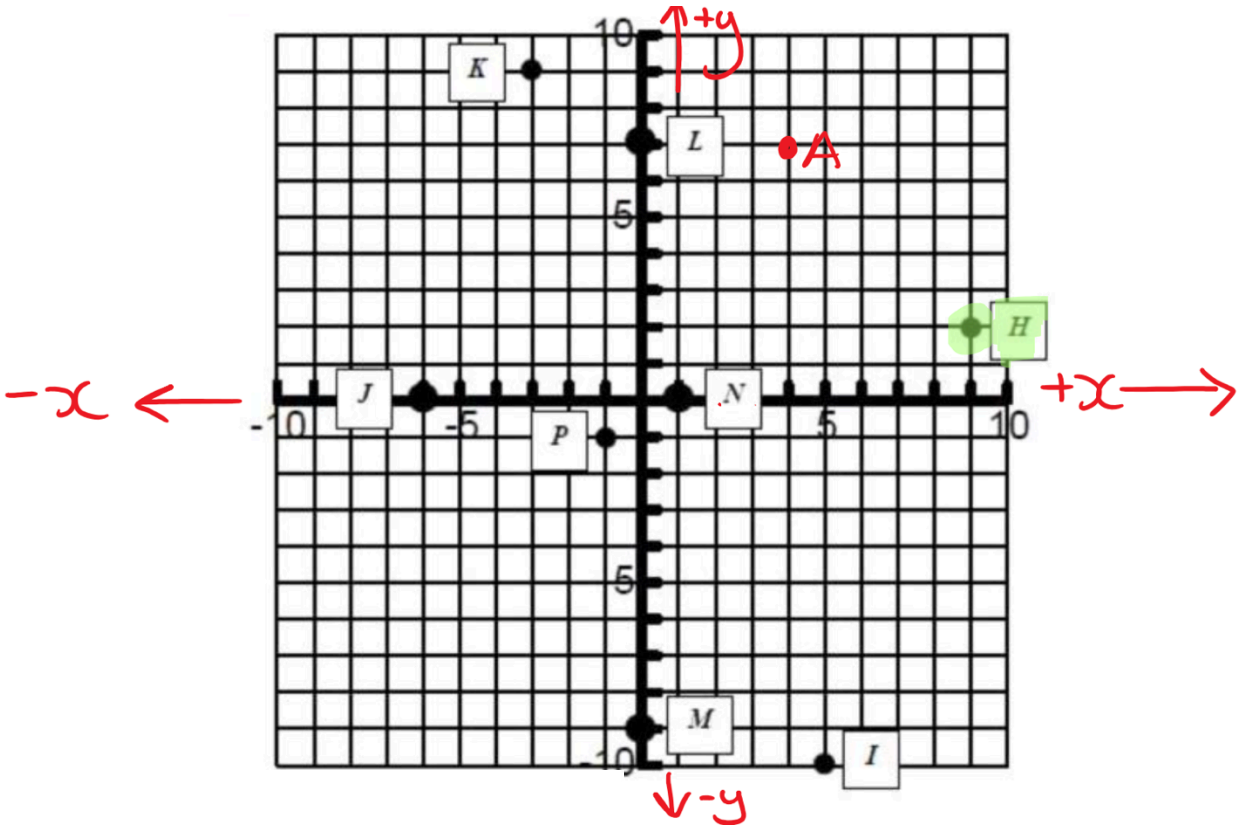
I = (,)

L = (,)

J = (,)

M = (,)

N = (,)



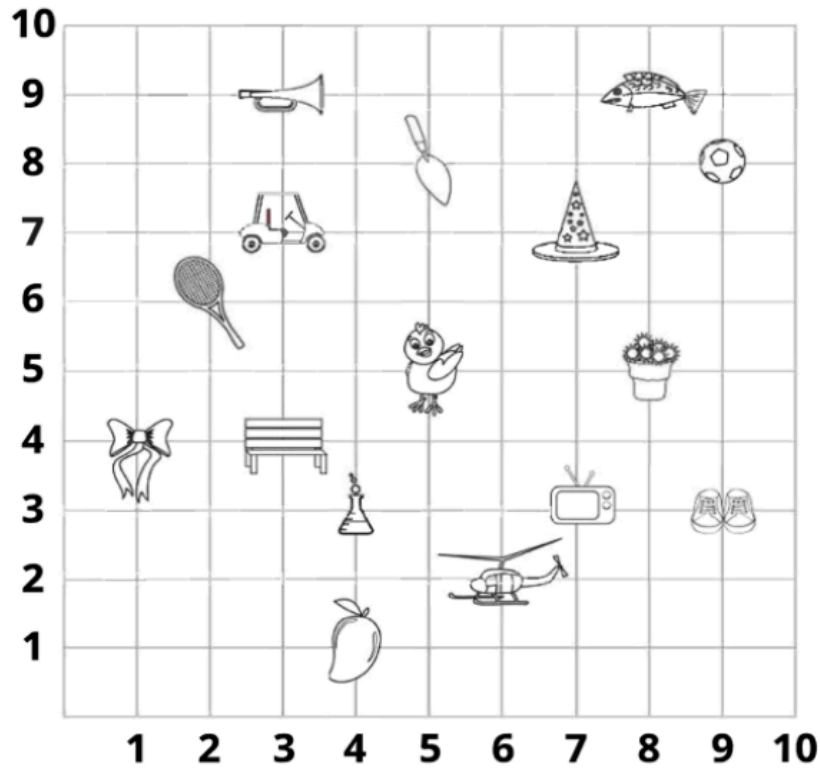
2. Which of the points above have an x coordinate of 0? _____

3. Which of the points above have a y coordinate of 0? _____

4. Fill in the table below

Quadrant	I	II	III	IV
Sign of X-Coordinate? (+/-)				
Sign of Y Coordinate? (+/-)				

Ordered Pairs (x,y)



Write the ordered pair for each of the objects listed.

example: television - (7,3)

- a. helicopter - _____ b. shoes - _____ c. pepper - _____
 d. wizard's hat - _____ e. fish - _____ f. golf cart - _____

Tell which object is located at each point.

- g. (3,4) - _____ h. (2,6) - _____ i. (1,4) - _____
 j. (5,5) - _____ k. (9,8) - _____ l. (3,9) - _____