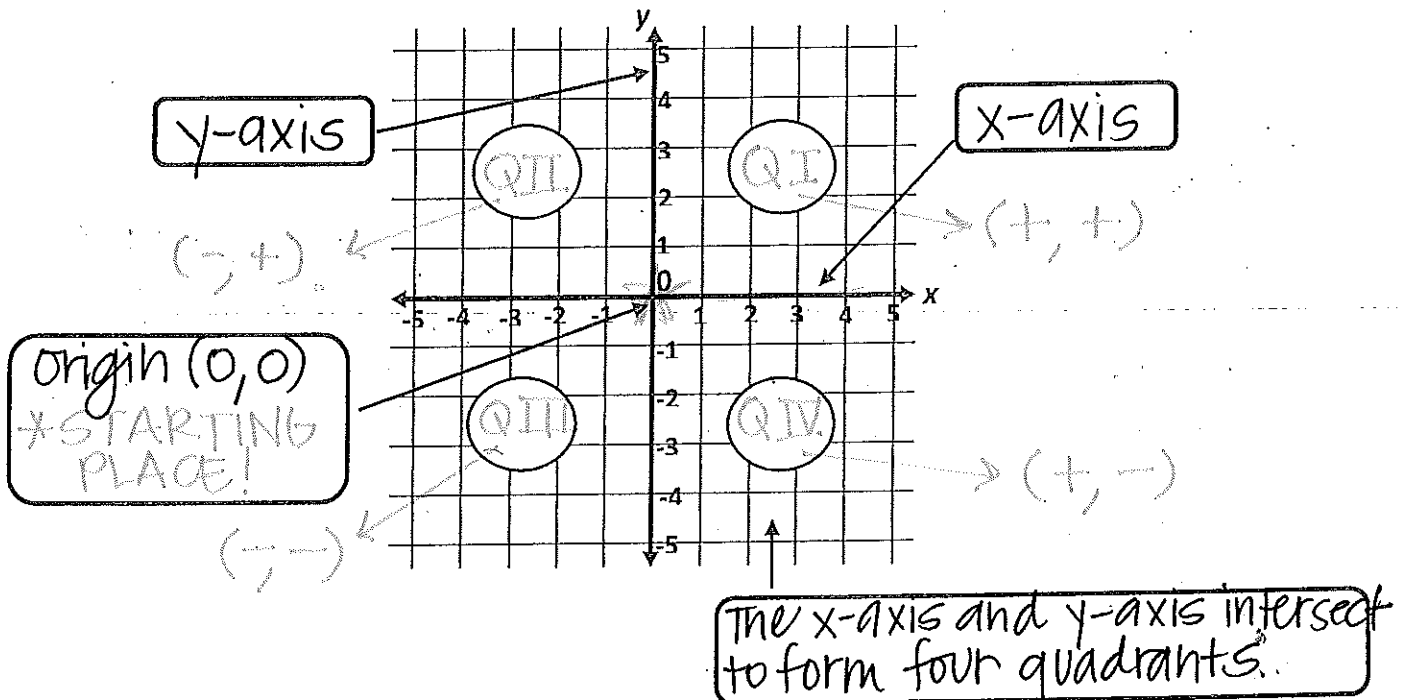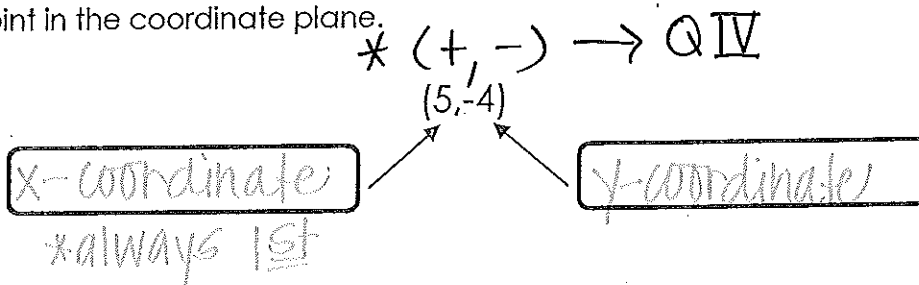# Coordinate Plane Notes and Practice

In mathematics we use a grid called a __coordinate plane__, to locate points.

Let's label the parts of the coordinate plane together.

y-axis

x-axis

(-, +)

QII   QI

(+, +)

origin (0,0)
*STARTING PLACE!

QIII   QIV

(-, -)

(+, -)

The x-axis and y-axis intersect to form four quadrants.

(coordinate)

An __ordered__ __pair__ is a pair of numbers, such as (5, -4), used to locate a point in the coordinate plane.

$*(+, -) \rightarrow Q\,IV$

(5, -4)

x-coordinate   y-coordinate

*always 1st

☆ How can you remember which coordinate to plot first? Where do you always start?

$* \; x \rightarrow y \; *$ * x comes before y in the alphabet.
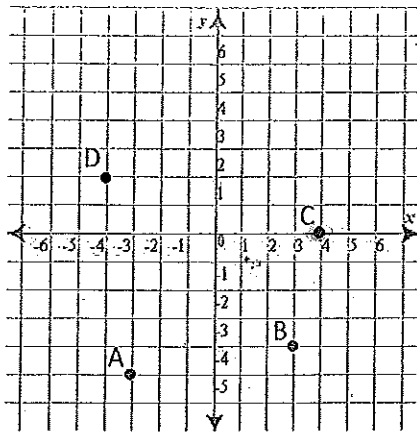
*crawl before you stand UP and walk.
*dribble before you jump to shoot.   (0,0)
*get on the elevator then, up or down.   ORIGIN = family originated!

When naming an ordered pair, moving **right** or **up** on a coordinate plane is in the **positive** direction. Moving **left** or **down** is in the **negative** direction.
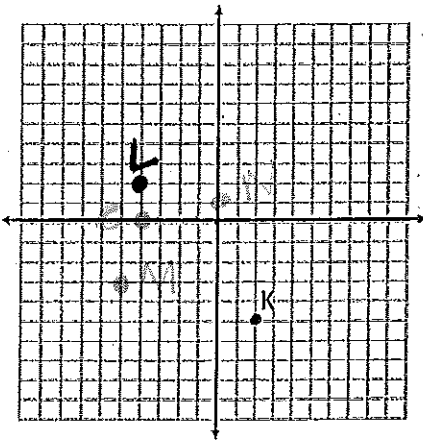
x   y

Write the ordered pair that names each point. Then name the quadrant or axis on which the point is located.

y-coordinate $= 0$
• x-axis

Point A
$(-3, -5)$
Q III

Point B
$(3, -4)$
Q IV

Point C
$(4, 0)$
x-axis

Using the grid at the left, graph and label each point.

L (-4, 2)   M (-5, -3)   N (0, 1)   O (-4, 0)

Let's Practice!!

Write the ordered pair for each point graphed at the right. Then name the quadrant or axis on which each point is located.

1. P $(-2, -5)$ Q III
2. Q $(4, -2)$ Q IV
3. R $(0, 3)$ y-axis
4. S $(3, 0)$ x-axis
5. T $(-6, 2)$ Q II
6. U $(8, -7)$ Q IV

Using the coordinate plane, graph and label each point.

7. V (2,3) Q I
8. W (-4, 6) Q II
9. X (-6, -6) Q III
10. Y (-5, 0) x-axis
11. Z (1, -2) Q IV
12. ☺ (0,5) y-axis