Name: Date: Period:

Graphing on the Coordinate Plane

The coordinate plane consists of two number lines: **x axis and y axis.**

The point where they intersect is called the **origin.**

The x and y axis divide the graph into four **quadrants.** These are numbered counter-clockwise starting in the top right corner, using Roman Numerals.

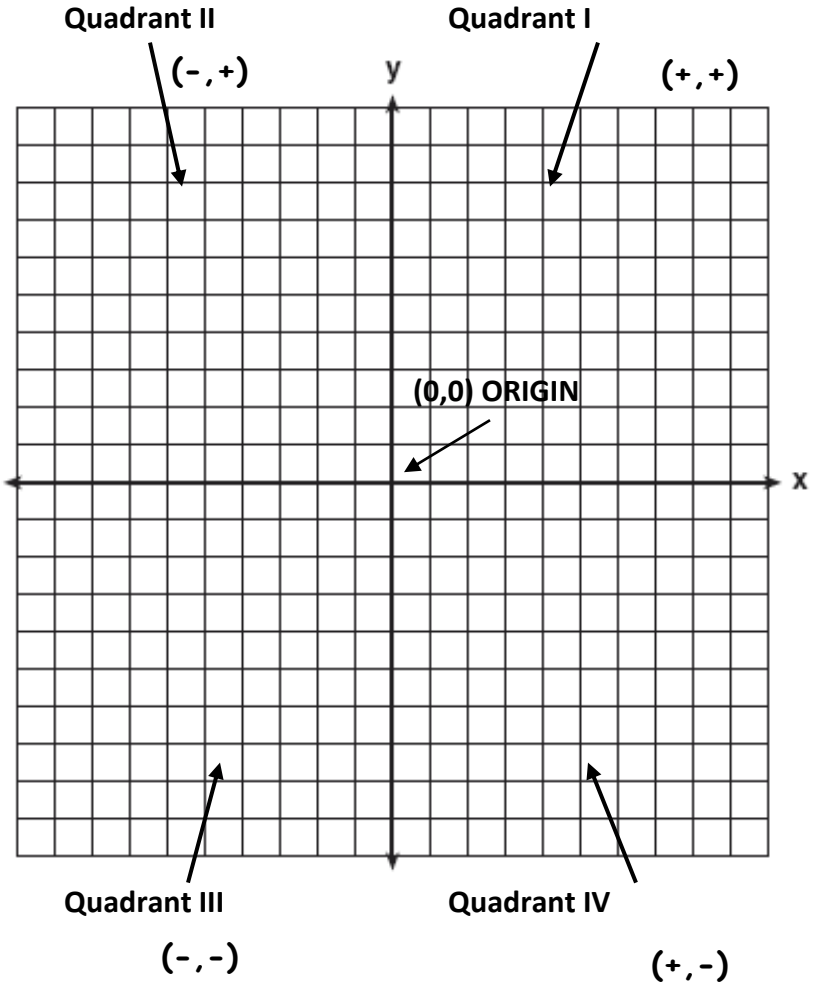
To locate a point on the coordinate plane we use an ordered pair consisting of two coordinates (x,y)

x is the **x coordinate** or the **abscissa**
y is the **y coordinate** or the **ordinate**

To plot a point, you must use a COMBINATION OF MOVES:

(- ⟷ + , ↕ + -)

(first number goes RIGHT or LEFT <u>ONLY</u>, second number goes UP or DOWN <u>ONLY</u>)
The direction depends on the sign of the number



1. Locate each ordered pair on the graph and name the quadrant in which it is located.

   a) (2, 5) _____ b) (5, 2) _____ c) (3, -2) _____ d) (-3, 2) _____

   e) (-4, -2) _____ f) (6, -3) _____ g) (-5, 4) _____ h) (3½, 5 ½) _____

   i) (-2½, -4 ½) _____ j) (0, 4) _____ k) (-2, 0) _____ l) (0, 0) _____

2. Which ordered pair locates a point **on** the x axis?

   a) (4, 1) b) (2, 0) c) (0, 2) d) (2, 2)

3. The points (2,6) and (-2,6) lie on a line that:

   a) is parallel to the x axis

   b) is parallel to the y axis

   c) passes through the origin

   d) passes through quadrants III and IV

4. Which ordered pair below is 2 units to the right and 5 units down from the point P (4, 1)?

   a) (5, -4) b) (6, -4) c) (-4, 6) d) (6, 6)

5. In which ordered pair is the abscissa 4 more than the ordinate?

   a) (4, -4) b) (2, 6) c) (5, 1) d) (4, 4)

6. Write an ordered pair that meets each condition given. (Check the front of the paper if you don't understand a word.)

   a) the y-coordinate is greater than the x-coordinate. _____

   b) the abscissa is greater than the ordinate. _____

   c) the ordinate is two more than the abscissa. _____

   d) the x and y coordinates are equal. _____

7. Which ordered pair is **not** located in a quadrant?

   a) (-3, 5) b) (0, -2) c) (-5, 4) d) (½, 1 ½)