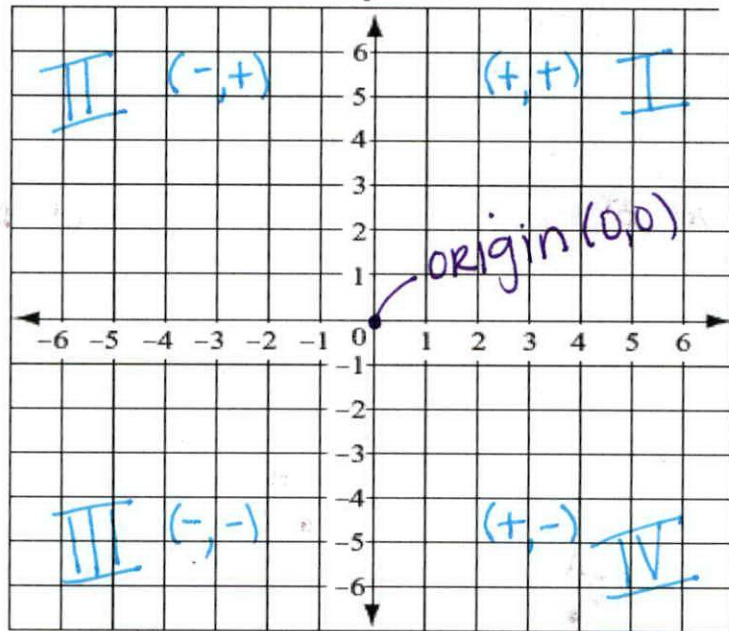


The Coordinate Plane
vertical axis
y

ordered pairs
(x,y) (↔, ↑)

*Walk to the elevator before you can go up or down



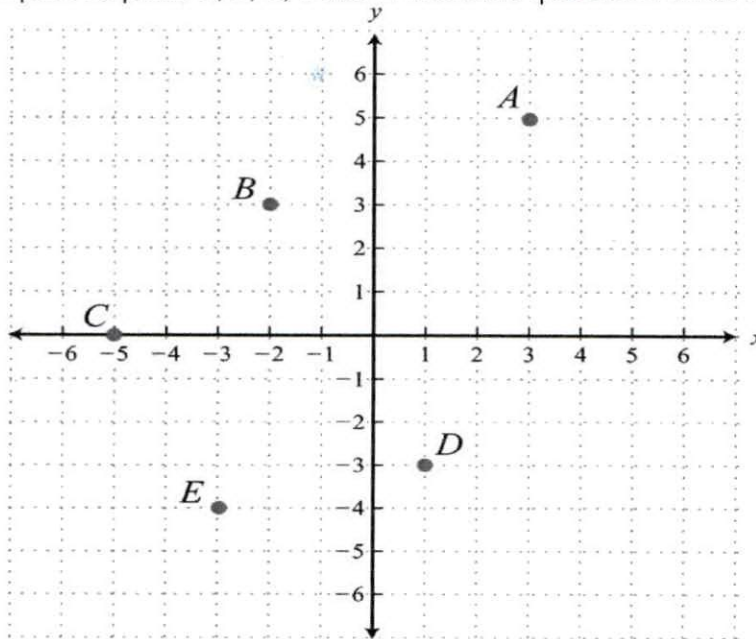
Coordinate Plane

x horizontal axis

Points in the coordinate plane are named by ordered pairs of the form (x, y) . The first number, or the x-coordinate, corresponds to numbers on the x -axis. The second number, or the y-coordinate, corresponds to the number on the y -axis. The origin has coordinates $(0,0)$.

Example 1: Write the ordered pairs for points A, B, C, D and E. Name the quadrant in which each point is located.

- A(3,5) I
- B(-2,3) II
- C(-5,0) none
- D(1,-3) IV
- E(-3,-4) III

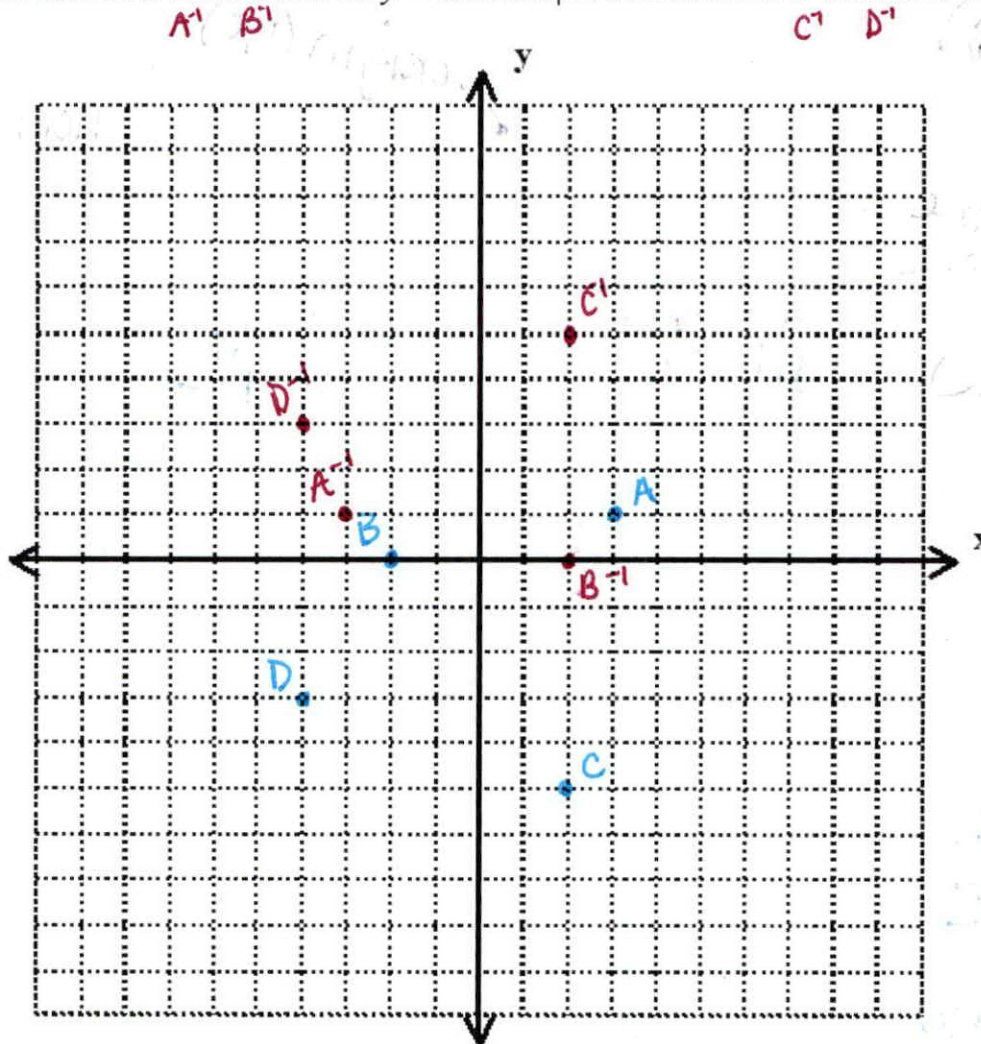


To graph an ordered pair means to draw a dot at the point on the coordinate plane that corresponds to the ordered pair. This is sometimes called *plotting a point*. When graphing an ordered pair, ALWAYS start at the origin.

- x-coordinate moves, RIGHT (positive) and LEFT (negative)
- y-coordinate moves, UP (positive) and DOWN (negative)

Example 2: Plot each point on the coordinate plane. $A(3,1)$, $B(-2,0)$, $C(2,-5)$, $D(-4,-3)$.

Plot the reflection of A and B over the y - axis and plot the reflection of C and D over the x - axis.



Homework: Build your own city

