

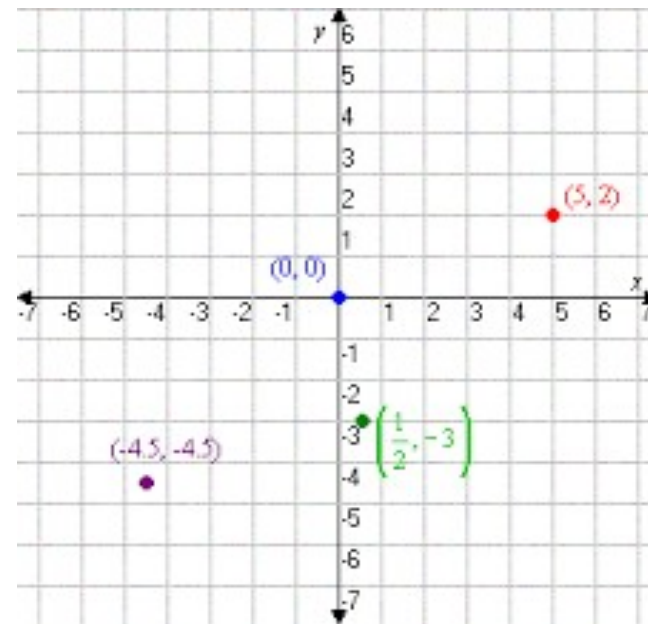


Coordinate Plane

CARTESIAN PLANE

COORDINATE PLANE

- ▶ The **Cartesian plane**, named after the mathematician Rene Descartes (1596 - 1650), is a **plane** with a rectangular coordinate system that associates each point in the **plane** with a pair of numbers.

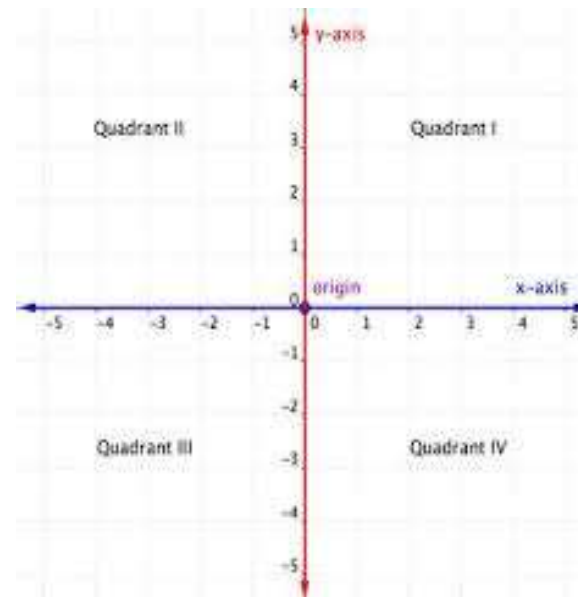


READING THE COORDINATE PLANE

- ▶ THE HORIZONTAL (RIGHT AND LEFT) AXIS IS CALLED THE X-AXIS
- ▶ THE VERTICAL (UP AND DOWN) AXIS IS CALLED THE Y-AXIS
- ▶ THE ORIGIN IS WHERE THE X AND Y AXIS CROSS. THIS IS WHERE YOU BEGIN COUNTING WHEN PLOTTING POINTS
- ▶ THESE 2 AXIS BREAK THE PLANE INTO 4 SECTIONS CALLED QUADRANTS.

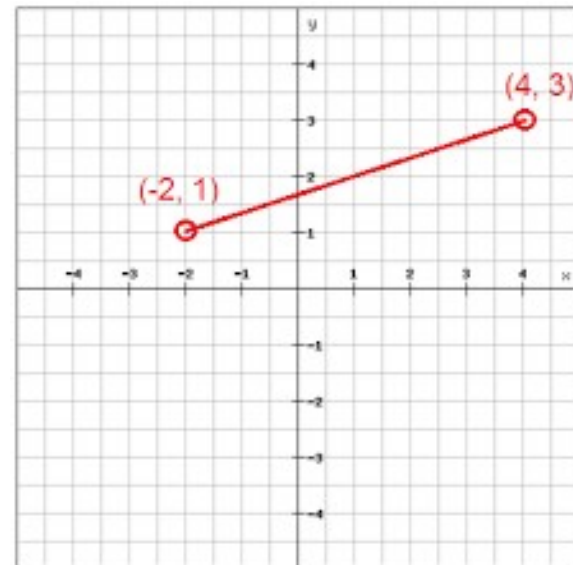
QUADRANTS

- ▶ THE 1ST QUADRANT IS MADE UP OF A POSITIVE X AND A POSITIVE Y COORDINATE
- ▶ THE 2ND QUADRANT IS MADE UP OF A NEGATIVE X COORDINATE AND A POSITIVE Y COORDINATE
- ▶ THE 3RD QUADRANT IS MADE UP OF BOTH A NEGATIVE X AND A NEGATIVE Y COORDINATE.
- ▶ THE 4TH QUADRANT IS MADE UP OF POSITIVE X COORDINATES AND NEGATIVE Y COORDINATES.



COORDINATES

- ▶ COORDINATES ARE MADE UP OF BOTH AN X AND A Y COORDINATE.
- ▶ THEY ARE WRITTEN IN WHAT WE CALL AN ORDERED PAIR.
- ▶ ORDERED PAIRS LOOK LIKE THIS: (X,Y)
- ▶ NUMBERS TAKE THE PLACE OF THE X AND Y. THIS COORDINATE GIVES YOU A LOCATION ON THE COORDINATE PLANE TO PLACE A POINT.



IMPORTANT THINGS TO REMEMBER

▶ WHEN PLOTTING POINTS THE 1ST NUMBER IN THE ORDERED PAIR IS ALWAYS YOUR X COORDINATE AND TELLS YOU TO GO RIGHT (POSITIVE NUMBERS) OR LEFT (NEGATIVE NUMBERS)

▶ WHEN PLOTTING POINTS THE 2ND NUMBER IN THE ORDERED PAIR IS ALWAYS YOUR Y COORDINATE AND TELLS YOU TO GO UP (POSITIVE NUMBERS) OR DOWN (NEGATIVE NUMBERS)

REMEMBER

- ▶ NEVER GO UP AND DOWN 1ST. ALWAYS START BY GOING LEFT OR RIGHT
- ▶ “YOU HAVE TO CLOSE YOUR JACKET (LEFT OR RIGHT), BEFORE YOU CAN ZIP IT UP (UP OR DOWN).”