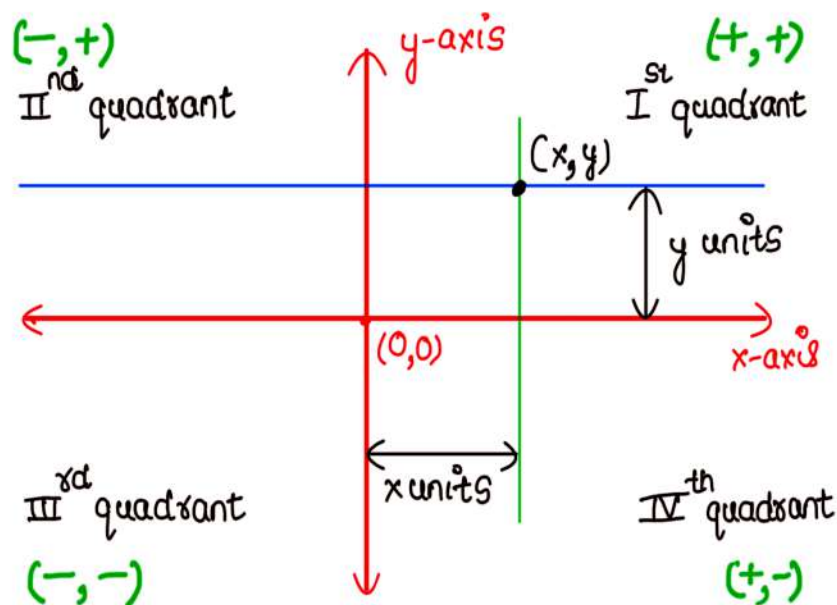




## COORDINATE GEOMETRY



- The plane is called the Cartesian, or coordinate plane & the lines are called the coordinate axes.
- The horizontal line is called the x-axis & the vertical line is called y-axis.
- The coordinate axes divide the plane into four equal parts.
- The point of intersection of the axes is called the origin.
- The distance of the point from y-axis is called its x-coordinate or abscissa, and the distance of the point from x-axis is called its y-coordinate, or ordinate.
- If the abscissa of a point is  $x$  and the ordinate is  $y$ , then  $(x,y)$  are called the coordinates of the point.
- The coordinates of a point on the x-axis are of the form  $(x,0)$  and that of the point on the y-axis are  $(0,y)$ .
- The coordinates of a point are of the form  $(+,+)$  in I<sup>st</sup> quadrant,  $(-,+)$  in the II<sup>nd</sup> quadrant,  $(-,-)$  in the third quadrant and  $(+,-)$  in the IV<sup>th</sup> quadrant.
- If  $x \neq y$ , then  $(x,y) \neq (y,x)$  &  $(x,y) = (y,x)$ , if  $x=y$ .