

# COORDINATE GEOMETRY

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- 1) We require two perpendicular axes to locate a point in the plane. One of them is horizontal and other is Vertical
- 2) The plane is called Cartesian plane and axis are called the coordinates axis
- 3) The horizontal axis is called x-axis and Vertical axis is called Y-axis
- 4) The point of intersection of axis is called origin.
- 5) The distance of a point from y axis is called x –coordinate or abscissa and the distance of the point from x –axis is called y – coordinate or Ordinate
- 6) The x-coordinate and y –coordinate of the point in the plane is written as  $(x, y)$  for point and is called the coordinates of the point
- 7) The Origin has zero distance from both x-axis and y-axis so that its abscissa and ordinate both are zero. So the coordinate of the origin is  $(0, 0)$
- 8) A point on the x –axis has zero distance from x-axis so coordinate of any point on the x-axis will be  $(x, 0)$
- 9) A point on the y –axis has zero distance from y-axis so coordinate of any point on the y-axis will be  $(0, y)$
- 10) The axes divide the Cartesian plane in to four parts. These Four parts are called the quadrants
- 11) The coordinates of the points in the four quadrants will have sign according to the below table

Quadrant	x-coordinate	y-coordinate
Ist Quadrant	+	+
IInd quadrant	-	+
IIIrd quadrant	-	-
IVth quadrant	+	-