

# 1-1.2-28

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## Question :-

In which quadrant or on which axis do each of the points  $(-2, 4)$ ,  $(3, -1)$ ,  $(-1, 0)$ ,  $(1, 2)$  and  $(-3, -5)$  lie ? Verify your answer by locating them on the Cartesian plane.

## Solution :-

To determine if point lies in a quadrant , we look at the the signs of the  $x$  and  $y$  coordinates .If

- 1)  $x$  coordinate  $> 0$  and  $y$  coordinate  $> 0$  then the point lies in first quadrant.
  - 2)  $x$  coordinate  $< 0$  and  $y$  coordinate  $> 0$  then the point lies in second quadrant.
  - 3)  $x$  coordinate  $< 0$  and  $y$  coordinate  $< 0$  then the point lies in third quadrant.
  - 4)  $x$  coordinate  $> 0$  and  $y$  coordinate  $< 0$  then the point lies in fourth quadrant.
  - 5)  $y$  coordinate  $= 0$  then the point lies on  $x$  axis.
  - 6)  $x$  coordinate  $= 0$  then the point lies on the  $y$  axis.
- 1)  $(-2, 4)$  lies in second quadrant.
  - 2)  $(3, -1)$  lies in fourth quadrant.
  - 3)  $(-1, 0)$  lies on the  $x$  axis.
  - 4)  $(1, 2)$  lies in the first quadrant.
  - 5)  $(-3, -5)$  lies in the third quadrant.

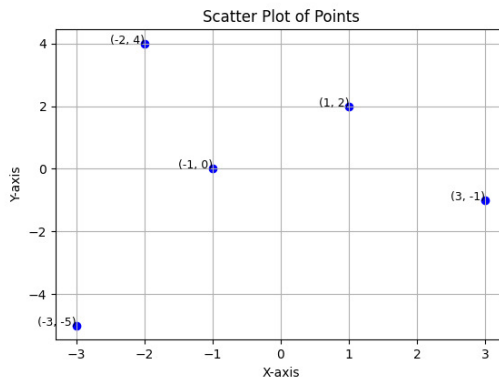


Fig. 5.1: X-Y plot