

Mathematics

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(Chapter – 3) (Coordinate Geometry)(Exemplar Problems)

(Class – IX)

Exercise 3.4

Question 3:

Plot the points P (1, 0), Q (4, 0) and S (1, 3). Find the coordinates of the point R such that PQRS is a square.

Answer 3:

In point P(1, 0), y-coordinate is zero, so it lies on X-axis . In point Q(4, 0) y-coordinate is zero so it lies on X-axis. In point S(1, 3) both coordinates are positive, so it lies in I quadrant. On plotting these points, we get the following graph. Now, take a point R on the graph such that PQRS is a square. Then, all sides will be equal i.e., $PQ = QR = RS = SP$. So, abscissa of R should be equal to abscissa of Q i.e., 4 and ordinate of R should be equal to ordinate of S i.e., 3. Hence, the coordinates of R are (4, 3).

