COORDINATE GEOMETRY

DISTANCE BETWEEN TWO POINT

EXERCISE

Q.1 Draw a rectangle KLMN such that its vertices K, L, M, and N are (5, 0), (5, 3), (0, 3) and (0, 0) respectively.

Q.2 Construct a square ABCD such that its vertices A, B, C, and D are (1, 2,) (– 7, 2), (– 7, – 6) and (1, – 6) respectively.

Q.3 Construct a square PQRS whose vertices P, Q, R and S are (0, 0), (– 4, 0), (– 4 , – 4) and (0, – 4) respectively

Q.4 Draw a parallelogram ABCD whose vertices A, B, C, and D are (– 4, 8), (– 4, 2), (6, – 7) and (6, – 1) respectively.

Q.5 Construct a trapezium PQRS in which vertices P, Q, R and S are (3, 0), (7, 9), (– 6, 9) and (– 2, 0) respectively.

Q.6 Which point on x-axis is equidistant from (5, 9) and (– 4, 6) ?

Q.7 If the opposite vertices of a square are (1, – 1) and (3, 4), find the coordinates of the remaining angular points.

Q.8 Prove that the points (–3, 0), (1, –3) and (4, 1) are the vertices of an isosceles right angled triangle. Find the area of this triangle.

Q.9 If P (2, – 1), Q(3, 4), R(–2, 3) and S(–3, –2) be four points in a plane, show that PQRS is a rhombus but not a square. Find the area of the rhombus.

Q.10 Find the coordinates of the point which divides the line segment joining the points (6, 3) and (– 4, 5) in the ratio 3 : 2 internally.

ANSWER KEY

6. (3, 0)

7. $\left(\frac{9}{2}, \frac{1}{2}\right)$ and $\left(-\frac{1}{2}, \frac{5}{2}\right)$.

8. $\frac{25}{2}$

9. 24 sq.

10. (0, 21/5)