Coordinate Geometry : Worksheet -7

1. Find the coordinates of the point which divides the join of (–1, 7) and (4, –3) in the ratio 2 : 3.

2. Find the coordinates of the points of trisection of the line segment joining (4, –1) and (–2, –3).

3. If A and B are (– 2, – 2) and (2, – 4), respectively, find the coordinates of P such tha AP = $\frac{3}{7}$ AB and P lies on the line segment AB.

4. Find the coordinates of the points which divide the line segment joining A(– 2, 2) and B(2, 8) into four equal parts.

5. Find the area of a rhombus if its vertices are (3, 0), (4, 5), (– 1, 4) and (– 2, – 1) taken in order.

   [Hint : Area of a rhombus $= \frac{1}{2}$ (product of its diagonals)]