CHAPTER-7
COORDINATE GEOMETRY

EXERCISE - 7.2

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. To conduct Sports Day activities, in your rectangular shaped school ground ABCD, lines have drawn with chalk powder at a distance of 1m each. 100 flower pots have been placed at a distance of 1m from each other along AD, as shown in Fig. 7.12. Niharika runs $\frac{1}{4}$th the distance AD on the 2nd line and posts a green flag. Preet runs $\frac{1}{5}$th the distance AD on the eighth line and posts a red flag. What is the distance between both the flags? If Rashmi has to post a blue flag exactly halfway between the line segment joining the two flags, where should she post her flag?

4. Find the ratio in which the line segment joining the points $(-3, 10)$ and $(6, -8)$ is divided by $(-1, 6)$.

5. Find the ratio in which the line segment joining $A(1, -5)$ and $B(-4, 5)$ is divided by the x-axis. Also find the coordinates of the point of division.

6. If $(1, 2), (4, y), (x, 6), (3, 5)$ are the vertices of a parallelogram taken in order, find x and y.

7. Find the coordinates of a point A, where AB is the diameter of a circle whose centre is $(2, -3)$ and B is $(1, 4)$.

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

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

10. 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 rhombus $=\frac{1}{2}$(product of its diagonals)]

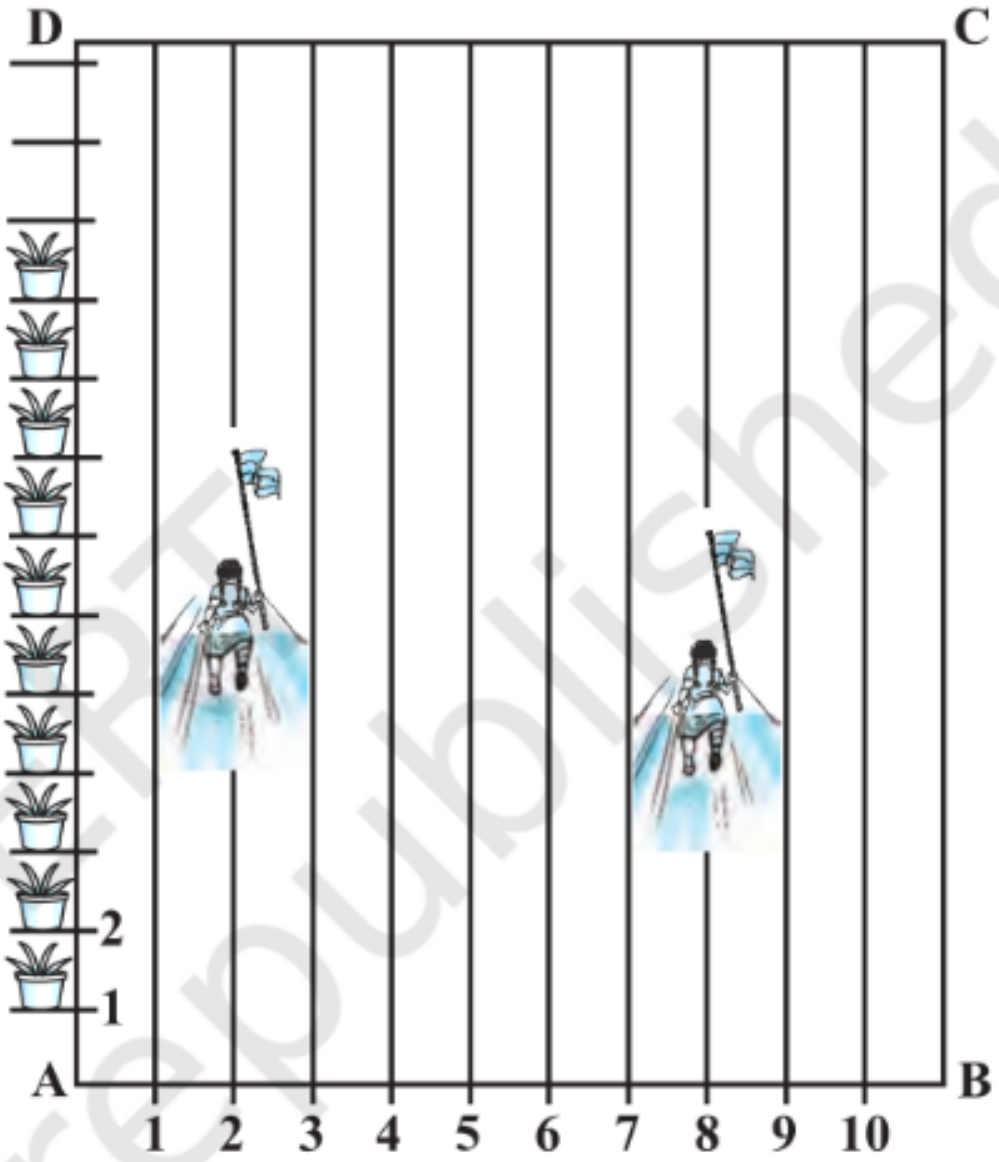

Fig. 7.12

Figure 1