Latex Assignment9

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Exercise 10.7.2

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 been 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 $\frac{1}{4}th$ 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 $(1, 2), (4, y), (x, 6)$ and $(3, 5)$ are the vertices of 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.

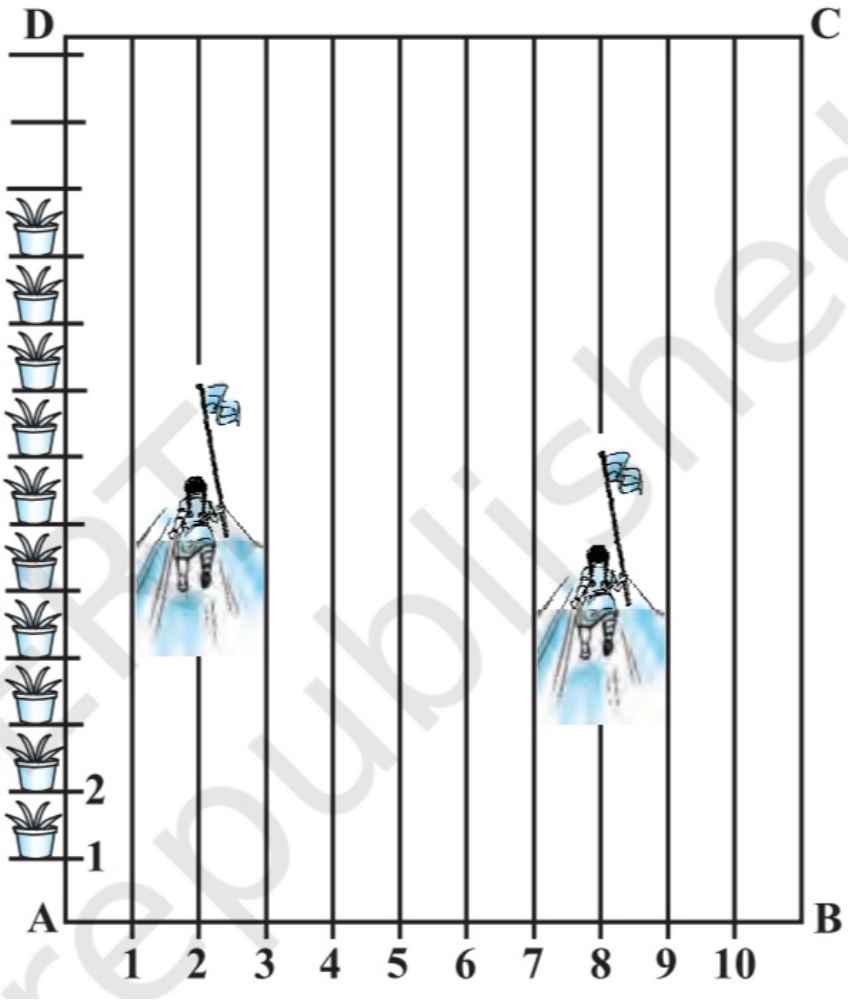

Figure 1: 7.12