

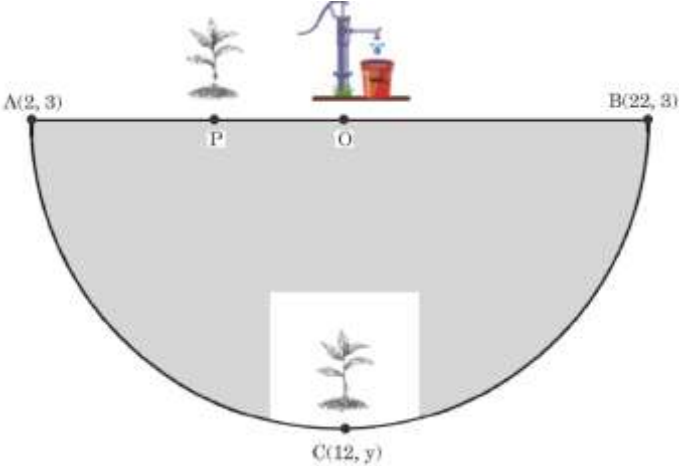


# INDIAN SCHOOL AL WADI AL KABIR

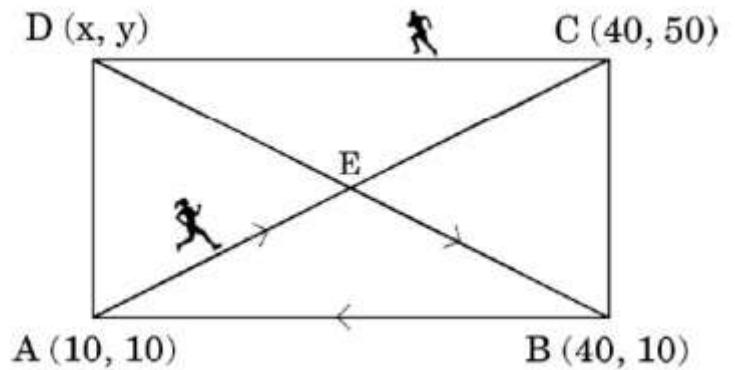
**Class IX**, Mathematics

## Worksheet- Coordinate Geometry

20 - 04 - 2026

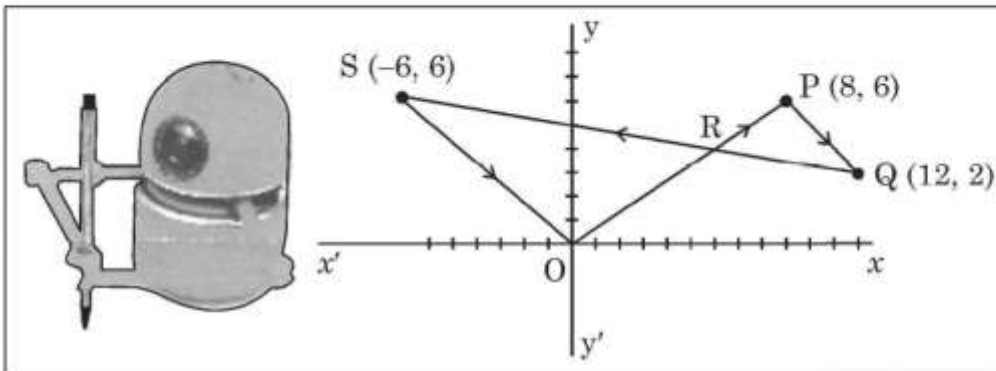
1.	In which quadrant or on which axis does the mid-point of the line segment joining points (1, 3) and (1, -3) lie?
2.	Find the distance of the point (3, -4) from X-axis.
3.	If point (1, 2) is the mid-point of the line segment joining the points (3, 5) and (2a, b), then find(a, b) .
4.	Using distance formula, prove that the points (1, 5), (2, 3) and (3, 1) are collinear.
5.	<p>There is a semi- circular park in Aman’s society. He wishes to plant saplings along the boundary of the park. There is a borewell at the centre O of the park along the diameter AB as shown in the figure below. Based on the above information, answer the following questions :</p> <p>(i) Find the coordinates of point O.</p> <p>(ii) Find the radius of the semicircular park.</p> <p>(iii) Find the perimeter of the circular park.(<math>\pi = 3.14</math>)</p> 
6.	<p>A field is in the form of a rectangle. The coordinates of the rectangular field ABCD are A(10, 10), B(40, 10), C(40, 50) and D(x, y). Anil and Anita, two friends decided to have a race. Anita started from point A and moved to point E along the diagonal AC, where E is the point of intersection of both the diagonals of ABCD. From point E, she moved to point B along the other diagonal DB and then moved back to point A along BA. While Anil started from point C and ran to point A via D along the boundary of the field.</p> <p>Based on the above information, answer the following questions :</p> <p>(i) Find the coordinates of point E.</p> <p>(ii) Find the distance between the points B and C.</p>

- (iii) If the coordinates of point D are (10,50) find the distance BD.  
 (iv) Find the total distance travelled by Anita.



7.

Gurveer and Arushi built a robot that can paint a path as it moves on a graph paper. Some co-ordinate of points are marked on it. It starts from (0, 0), moves to the points listed in order (in straight lines) and ends at (0, 0).



Arushi entered the points P(8, 6), Q(12, 2) and S(-6, 6) in order. The path drawn by robot is shown in the figure.

Based on the above, answer the following questions :

- Determine the distance OP.
- QS is represented by equation  $2x + 9y = 42$ . Find the co-ordinates of the point where it intersects y – axis.
- Find the distance of point S from the Origin.
- Find the mid- point of PQ.

### Answers

1	Y axis	2	4 units	3	$(-\frac{1}{2}, -1)$	5	(i)(12, 3) (ii) 10 (iii)51.4 units
6	(i)(25, 30)(ii) 40(iii)50 (iv) 80 (7)(i)10 (ii)(0,14/3) (iii) $6\sqrt{2}$ (iv)(10,3)						