

INTERNATIONAL INDIAN SCHOOL BURAI DAH

Worksheet 2025-26

CLASS: X

SUBJECT: MATHEMATICS

Chapter No:7 – Coordinate Geometry

MCQ:

1-The distance between the points (0,5) and (-5 ,0) is:

- (a) 5 (b) -5 (c) $5\sqrt{2}$ (d) $6\sqrt{2}$

2-The distance of a point (-5,12) from origin is :

- (a) 17 units (b) 13 units (c) 7 units (d) none of these

3-The distance between (3,4) and (-5,2) is:

- (a) $2\sqrt{18}$ (b) $\sqrt{24}$ (c) $2\sqrt{17}$ (d) $\sqrt{17}$

4-The midpoint of segment AB is the point P(0,4). If the coordinates of B are (-2,3), then coordinates of A are:

- (a) (2 ,5) (b) (2,9) (c) (-2,-5) (d) (-2,11)

5-If the point P(6,2) divides the line segment joining A(6,5) and B(4,y) in the ratio 3:1 then the value of y is:

- (a) 4 (b) 3 (c) 2 (d) 1

6-The distance between the points $(a \cos \theta + b \sin \theta, 0)$ and $(0, a \sin \theta - b \cos \theta)$ is

- (a) $a^2 + b^2$ (b) $\sqrt{a^2 + b^2}$ (c) $a^2 - b^2$ (d) $\sqrt{a^2 - b^2}$

7-If the point P(k,0) divides the line segment joining the points A(2,-2) and B (-7,4) in the ratio 1:2 , then the value of k is

- (a) 1 (b) -2 (c) 2 (d) -1

8-Find the ratio in which the line segment joining (2 , -3) and (5,6) is divided by the X-axis

- (a) 1 : 2 (b) 2 : 5 (c) 2 : 1 (d) 5 : 2

9-Find the ratio in which the line segment joining (2 , -3) and (5,6) is divided by the Y-axis

- (a) 1 : 1 (b) 2 : 1 (c) 1 : 2 (d) 5 : 2

10-AOBC is a rectangle whose three vertices are A(0,3) , O (0,0) , B (5,0) the length of diagonal is :

- (a) $\sqrt{14}$ (b) $\sqrt{17}$ (c) $\sqrt{34}$ (d) $2\sqrt{17}$

Assertion and reasoning :

1-Assertion:The point (-1,6) divides the line segment joining the points (-3,10) and (6 , -8) in the ratio 2 : 7 internally

Assertion (a)Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
 Assertion. (b)Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.

(c) Assertion is true but the reason is false.
 (d)Both assertion and reason are false.

2-Assertion : C is the midpoint of PQ , if P is (4,x) , C is (y,-1) and Q(-2,4)then x and y respectively are -6 and 1 .

Reason : The midpoint of the line segment joining the points P (x_1, y_1) and Q (x_2, y_2)

Is $(x_1 + x_2)/2$, $(y_1 + y_2)/2$

(a)Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.

(b)Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.

(c) Assertion is true but the reason is false.
 (d) Both assertion and reason are false.

Subjective Questions:

1-find the perimeter of a Triangle with vertices A(0,4) , B (0,0) and C(3,0)

2-Find the co-ordinate of point A ,where AB is a diameter of a circle whose centre is (2,-3) and B is the point (1 , 4)

3- Find the point on the X-axis which is equidistant from the point (-1,0) and (5,0)

4-Write the coordinates of a point P on x-axis which is equidistant from the point A(-2,0) and B(6,0)

5-If the point P(k-1 ,2) is equidistant from the points A(3 ,k) and B (k, 5).find the value of k

6-Find the co-ordinates of a point P , which lies on the line segment joining the points A (-2,-2) and B (2,-4) such that $AP = \frac{3}{7} AB$.

7-If the points P (2,2) is equidistant from the points A(-2,k) and B (-2k , -3), find k .Also find the length of AP.

8-Prove that the diagonals of a rectangle ABCD with vertices A (2 , -1) , B (5, -1) ,C (5,6) and D (2,6) are equal and bisect each other.

9-In what ratio does the point P (24 /11 , y) divide the line segment joining the points P(2,-2) and Q(3,7)? Also find the value of y.

10-If (-2,-1) ,(a,0) , (4,b)and (1,2) are the vertices of parallelogram taken in order , find the value of a and b

11-find the ratio in which line $x - 3y = 0$ divides the line segment joining the points $(-2, -5)$ and $(6, 3)$ find the point of intersection

12-If the coordinates of the mid-points of the sides of a triangle are $(3, 4)$, $(4, 6)$ and $(5, 7)$. Find its vertices.