INTERNATIONAL INDIAN SCHOOL BURAIDAH

MATHS-WORK SHEET-2026-27

CLASS X

CH:6-Coordinate Geometry

MCQ:

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

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

2-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) 2 (c) 3 (d) 1

3-The distance between the point $(acos\theta + bsin\theta, 0) and\ (0\ , asin\theta - bcos\theta), is$

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

4-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

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

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

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

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

7-The distance of a point (-5 , 12) from the origin is

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

8-In the second quadrant , for a point ,the abscissa is ……..and the ordinate is …… is

(a) Positive , Negative (b) Negative , Positive (c) Negative , Negative (d) Positive ,Positive

9- The distance between the points (3 , 4) and (-5 , 2) is …..

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

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

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

Assertion -Reason Questions

The following questions consist of two statements -Assertion (A) and Reason(R) .Answer these questions selecting the appropriate option given below :

(a) Both A and R true and R is the correct explanation for A.
(b) Both A and R are true but R is not the correct explanation for A
(c) A is true but R is false.
(d) A is false but R is true .

1-**Assertion :** The point (-1 , 6) divides the line segment **joining the points (-3 , 10) and (6 , -8) in the ratio 2 :7 internally.**
Reason: Three points A , B and C are collinear if AB = BC where B lies between A and C
2-**Assertion** :By using graph we can locate (0 , 4) on the Y -axis.
Reason: A point whose Y – coordinate is Zero lies on the X-axis .

Subjective Type Question :

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

2-If P (a/2 , 4) is the midpoint of the line segment joining the points A (-6 , 5) and B (-2 , 3), then find the value of a .

3- Prove that the points A (-3 , 0) , B (1 , -3) and C (4 , 1) are the vertices of isosceles right triangle .

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

5-If the point P (x , y) is equidistant from the points A (5 , 1) and B (-1 , 5) , prove that 3x=2y

6-A line intersects the Y-axis and X -axis at the point P and Q respectively .If (2 , -5) is the midpoint of PQ , then find the coordinates of P and Q.

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

8-Points A (-1 , y) and B (5 ,7) lie on a circle with centre O (2 , -3y) .Find the value of y .Hence find the radius of the circle .

9-Three villages having nearly the same population are situated at the positions (1, 2) , (5 , 4) and (3 , 8) .the Block Development Officer wants to set-up a community centre in such a way that it is equally convenient to reach it for the villagers of all the three villages . Find position where the community centre should be st-up

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

11- Apoint P divides the line segment joining the points A (3 , -5) and B (-4 , 8) such that $\frac{AP}{PB} = \frac{k}{1}$. If P lies on the line x + y = 0 , then find the value of k .

12-In what ratio does the point ($\frac{24}{11}$, y) divides the line segment joining the points P (2 , -2) and Q (3 , 7) ? Also find the value of y .

13-In triangle ABC coordinates of whose vertices A are (0 , -1) . D and E respectively are the midpoints of the sides AB and AC and their coordinates are (1 , 0) and (0 , 1) respectively .If F is the midpoint of BC find the coordinates of B , C and F

14-Show that the points A (6 , 2) , B (2 , 1) , C (1 ,5) and D (5 ,6) are the vertices of square.

15-Find the ratio in which the line x – 3y =0 divides the line segment joining the points (-2 , -5) and (6 , 3) .Find the coordinates of the point of intersection.

16- 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 .

17-Find the coordinates of the centroid of a triangle .

18-Find the midpoints of the sides of the triangle whose vertices are (2, 2) and (4,4) and C (2, 6)

19-If A (5 , -1) , B (-3 , -2) and C (-1 , 8) are the vertices of a triangle ABC , find the length of the median through A .

20-If the co-ordinates of the midpoints of the sides of a triangle are (3 , 4) , (4 , 6) and (5 , 7) Find its vertices.

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