

SURAJBHAN DAV PUBLIC SCHOOL
CLASS -10 MATHEMATICS
CO-ORDINATE ASSIGNMENT

Q1. If the points A (4 , 3) and B (x , 5) are on the circle with centre O (2 , 3), then find the value of x.

Q2. What is the distance between the points P (c , 0) and Q (0,-c)

Q3. For what value of p , are the points (-3 , 9) , (2 , p) and (4 , -5) collinear ?

Q4. If A (-2 , 4) , B (0 , 0) , C (4 , 2) are the vertices of a triangle ABC , then find the length of median through the vertex A.

Q5. Find the centroid of triangle whose vertices are (3 , -7) , (-8 , 6) and (5 , 10).

Q6. Find a relation between x and y if the points (2 , 1) , (x , y) and (7 , 5) are collinear .

Q7. Find the ratio in which the line segment joining (2 , -3) and (5 , 6) is divided by x- axis.

Q8. Show that the points A (a , a) , B (- a , -a) and C (-a root 3 , a root 3) form an equilateral triangle.

Q9. Show that points A (7 , 5) , B (2 , 3) and C (6 , -7) are the vertices of a right triangle and also find its area.

Q10. Find the area of the rhombus , if its vertices are (3 , 0) ,(4, 5) , (-1 , 4) and (-2 , -1) taken in order.

HOTS

Q11. Two opposite vertices of a square are (-1,2) and (3, 2), find the coordinates of the other two vertices.

Q12. Find the centre of a circle passing through the points (6 , -6) , (3 , 7) and (3 , 3).

Q13. If the distance between the points (3,0) and (0 ,y) is 5 units and y is positive, then find the value of y .

Q14. If the points (x,y) , (-5,-2) and (3,-5) are collinear ,then prove that $3x + 8y + 31 = 0$.

Q15. A line intersects y- axis and x- axis at the points P and Q respectively. If (2,-5) is the midpoint of PQ , then find the coordinates of P and Q respectively.

Q16. Find the coordinates of the points which divides the line segment joining the points (-2,0) and (0,8) in four equal parts.

Q17. A (6,1) , B(8,2), C(9,4) are the three vertices of a parallelogram ABCD, if E is the midpoint of DC , then find the area of triangle ADE.