**WORK SHEET**

**CLASS\_10 Sub:Maths**

**(Chapter: Co-Ordinate Geometry)**

**Q . 1.**Find a point on the y-axis which is equidistant from the points (-5 -2) and (3,2).(Ans(0,-2)

**Q . 2.**Show that the points A (1,2),B (3,2),C (3,4) and D (1,4) can be the vertices of a square.

**Q . 3.**The three consecutive vertices of a parallelogram are (-2,1),(1,0) and (4,3).Find the fourth vertex.(Ans:(1,4).

**Q . 4.**By distance formula, show that the points (5,-1), (2,2), (9, -5) are collinear.

**Q . 5.**Find the point which is equidistant from the points (3,1), (1,-3) and (6,-8).Ans:(6,-3)

**Q . 6.**In what ratio is the line segment joining the points (-2,-3) and (3,7) divided by the y-axis .
Also. find the coordinates of the points of division.

**Q . 7.**Two vertices of a ABC are given by A(6,4) and (-2,2), and its centroid is G(3,4).Find the coordinates of the third vertex C of ABC.

**Q . 8.**Show that the points (a, b + c), (b, c + a), (c, a + b), are collinear . .

**Q . 9.**The mid-points of the sides of a triangle are (10,5), (8,4), and (6,6).Find the vertices of the triangle.

 **10.**The centre of the circle is (2, 6) and one end of a diameter is (8 , 12), find the coordinates of the other end.

**Q. 11.**If (3, 0), (2, a) and (b, 6) are the vertices of a triangle ABC whose centroid is (2, 5). Find the values of a and b.

**Q. 12.**If P(-1, 3), Q(1, -1) and R(5, 1) are the three vertices of a triangle PQR, find the length of median through Q.

**Q.1 3.**If A(4, 5),B (8, 7) and C(12, 3) are vertices of the triangle. Find the area of the triangle formed by the mid-points of the sides of a triangleABC.

**Q. 14.**Using section formula show that (-2,1), (1,0), (4,3) and (1, 4) are the vertices of a parallelogram.

**Q. 15.**In what ratio is the line segment joining the points (3, -5) and (8, 6) divided by the x-axis? Also find the coordinates of the point of division.

**Q. 16.**Find the point which represents the three-fourths of the distance from (3, 2) to (-5, 6).

**Q. 17.**Find the coordinates of the centre of circle, the coordinates of the end points of whose diameters are (0, 0) and ( 8,8). Also find the radius of the circle.

**Q. 18.**In what ratio does the point (-2, 3) divide the line segment joining the points (-3, 5) and (4, -9) ?Ans:1:6

**Q. 19.**Find the coordinates of the points of trisection of the line segment joining the points (3, 2) and (3, 8).

**Q. 20.**Find the coordinates of a point which divide the segment AB in the ratio 3:5 internally, where A and B are (4, 6) & (4,22) respectively.

**Q. 21.**Find the coordinates of point on the line joining A(3, -4) and B(-2, 5) that is twice as far from A as from B.

**Q. 22.**The mid-point of the line segment joining (3p, 4) and (--12 , 4q) is (2, 2p + 2). Find the values of p and q.

**Q. 23.**Find the coordinates of a point whose distance from (3, 4 ) is 3 units and that from (3, 13) is 6 units.

**Q. 24.**An equilateral triangle has one vertex at (3, 4) and another at (-2, 3). Find the coordinates of the third vertex.

25. Determine the ratio in which the line 2x+y-4=0 divides the line-segment joining the points A(2,-2) and B(3,7).

Prepared by: ROY MATHEW