MEGH INSTITUTE OF ADVANCED STUDIES (MIAS)

(MISSION WITH A VISION)

NO-1, MK COMPLEX, NEAR POLICE STATION, MUTHAPUDUPET, IAF AVADI, CHENNAI-55
CALL: 9566123901 / 9710200871.
www.meghtraining.com

MATHEMATICS-X: WORK SHEET

CHAPTER- 7: COORDINATE GEOMETRY

DISTANCE FORULA

1. Find the distance between the points P(7,5) and Q (2, 5)
2. Find the length of the line PQ formed by the two points P (4, 10) and Q (7, -6).
3. Find a point on x- axis which is equidistant from the points (5, 4) and (-2, 3)
4. If the distance of A(x, y) from P(5, 1) and (-1, 5) are equal, prove that $3x =2y$
5. Check whether (5, -2), (6, 4) and (7, -2) are the vertices of an isosceles triangle
6. Prove that the points (1, -1), $(\frac{1}{2},\frac{1}{2})$ and (1, 2) are the vertices of an isosceles triangle.
7. Show that the points (a, a), (-a, -a) and $(-a\sqrt{3}, a\sqrt{3})$ are the vertices of an equilateral triangle.
8. If (3,2) and (-3, 2) are two vertices of an equilateral triangle which contains the origin within it, what are the co-ordinates of the third vertex?
9. Show that the points (12, 8), (-2, 6) and (6, 0) are the vertices of a right angled triangle.
10. Show that (1, -1) is the centre of the circle circumscribing the triangle whose angular points (4, 3), (-2 3), (6, -1)

SECTION FORMULA

11. Find the coordinates of the points which divides the join of (-1, 7) and (4, -3) in the ratio 2:3

12. Find the co-ordinates of the points which divides the line joining (1, -2) and (4, 7) internally in the ratio 1:2
13. Find the co ordinates of the points which divides the line joining the points (3, 5), (4, 2) internally in the ratio 3:2
14. Find the middle point of the line joining (-3, -6) and (1, -2)
15. Find the coordinates of a point A, where AB is the diameter of a circle whose centre is (2, -3) and B is (1, 4)

16. Find the co-ordinates of the points of tri section of the straight line joining the points A(1, -2) and B(-3, 4)
17. Find the area of a triangle whose vertices are (3, 8), (-4, 2) and (5, -1)
18. Find the area of the triangle, the coordinates of whose angular points are (5, 2), (-9, -3) and (-3, -5)
19. Show that the points (a, b+c), (b, c+a), and (c, a+b) are collinear
20. If (1,1), (7,-3) (12, 2) and (7,21) are the co ordinates of the vertices of a quadrilateral, prove that its area is 132 sq. units