

VISWABHARATI - GUDIVADA
WORK SHEET - 1
Chapters : Coordinate Geometry, Statistics

Class: X

Subject: Mathematics

Name _____ **Class/Sec:** _____ **Roll No:** _____

Time: 75min

Marks: 30

Answer the following Questions.

15 × 2 = 30

1. Are the points (3,2) (-2, -3) and (2,3) form a triangle?
2. If the distance between two points (x,7) and (1,15) is 10. Then find 'x'.
3. If the centroid of the triangle whose vertices are (2,3) (x,y) (3,-2) is origin then find (x,y)
4. Find the coordinates of a point A. where AB is diameter of a point whose centre is (2,-3) and B is (1,4).
5. Find the area of a square whose vertices are (0,-1) (2,1) , (0,3) and (-2, 1) taken in order are as vertices.
6. If a = 8cm, b = 15cm and c = 17cm then find area of ΔABC by using herion's formula.
7. If (1,2) (-1, b) (-3, 4) are collinear points then find the value of 'b'
8. The slope of line joining of two points is zero. Then where do the two points lie. Write the possibilities.
9. In which situations direct method, assumed mean method and step deviation method are we can choose to find mean of a grouped data.
10. Find mode of the following data

| C.I. | 0-20 | 20-40 | 40-60 | 60-80 | 80-100 | 100-120 |
|------|------|-------|-------|-------|--------|---------|
| f | 10 | 35 | 52 | 61 | 38 | 29 |

11. Find greater than cumulative frequency distribution for the following less than cumulative distribution.

| Age (in year) | Below 20 | Below 30 | Below 40 | Below 50 | Below 60 | Below 70 |
|----------------|----------|----------|----------|----------|----------|----------|
| No. of persons | 15 | 23 | 42 | 55 | 58 | 60 |

12. What kind of graphs we can draw to represent median and mode.
13. Write the formula to find median of the grouped data and explain each term.
14. Write relation between mean median and mode. If mean and mode of a grouped data are 16.5 and 17.5 then find median.
15. Which measure of central tendency you will use for the following situations.
 - i) to find average wage of a country
 - ii) the consumer item in greatest demand
 - iii) to compare performance of two students in studies.
 - iv) to find most popular game liked by people.