

STATISTICS

Activity – 14

1. What we have to do?

To calculate the Mean, Mode and Median for the Heights of 15 students of class X. Represent the Median through the Ogive (More than and Less than)

2. What is required?

Graph paper, geometry box, colour pens, pair of scissors, glue stick

3. Time required: 30 min

4. What do we need to know?

Formula for the Mean, Median and Mode for grouped data

5. How will you proceed?

- 1) Collect the heights of 15 students of your class (in cm).
- 2) Arrange the data in the ascending/descending order and Make the Frequency Distribution Table with constant size of 0.5 cm.
- 3) Apply the formula to calculate the Mode.
- 4) Use the formula for Mean (Step deviation method) to calculate Mean.
- 5) Find the Cumulative Frequency of the data and apply the formula to get Median
- 6) Convert the data into 'less than' and 'more than' distribution to plot Ogive.
- 7) Verify the Median found geometrically with the found using Algebraic method in the step 5 above.

6. What we have you observed?

- 1) Mode of the data = _____
- 2) Mean Of The data = _____
- 3) Median of the data = _____
- 4) Point of intersection of the 'more than' and 'less than' Ogive = _____

7. What have you learnt?

What is the relation between the Mean, Median and Mode?

8. What would you be interested in doing?

Determine the measures of central tendency for the distance travelled by 20 students (using School bus) of your class from their home to school.

Real Life Application:

The above concept is Agriculture, Weather forecast, Finance, Stock market, Banking, Business, Economics, Natural Sciences and Social Sciences etc....
