

**CLASS: IX** 

## SUBJECT - MATH

**TOPIC: STATISTICS** 

Dated: 12.06.2020

**WORKSHEET # 18** 

## This work sheet is based on the topic omentioned above and has a set of 13 questions which you are to Solve in work sheets on Statistics.

- Find the mean of 8, 12, 16, 22, 10 and 4. Find the resulting mean, if each of the observations, given above, be:
  - (i) multiplied by 3.
  - (ii) divided by 2.
  - (iii) multiplied by 3 and then divided by 2.
  - (iv) increased by 25%.
  - (v) decreased by 40%.
- The mean of 18, 24, 15, 2x + 1 and 12 is 21. Find the value of x.
- The mean of 6 numbers is 42. If one number is excluded, the mean of remaining numbers is 45. Find the excluded number.
- The mean of 10 numbers is 24. If one more number is included, the new mean is 25. Find the included number.
- The following observations have been arranged in ascending order. If the median of the data is 78, find the value of x.
  - 44, 47, 63, 65, x+13, 87, 93, 99, 110.
- The following observations have been arranged in ascending order. If the median of these observations is 58, find the value of x.
   24, 27, 43, 48, x-1, x+3, 68, 73, 80, 90.
- Find the mean of the following data:
   30, 32, 24, 34, 26, 28, 30, 35, 33, 25

- Show that the sum of the deviations of all the given observations from the mean is zero.
- (ii) Find the median of the given data.
- 8. Find the mean and median of the data:
  35, 48, 92, 76, 64, 52, 51, 63 and 71.
  If 51 is replaced by 66, what will be the new median?
- The mean of x, x+2, x+4, x+6 and x+8 is 11, find the mean of the first three observations.
- Find the mean and median of all the positive factors of 72.
- 11. The mean weight of 60 students in a class is 40 kg. The mean weight of boys is 50 kg while that of girls is 30 kg. Find the number of boys and girls in the class.
- The average of n numbers x<sub>1</sub>, x<sub>2</sub>, x<sub>3</sub>, ..., x<sub>n</sub> is A. If x<sub>1</sub> is replaced by (x + a)x<sub>1</sub>, x<sub>2</sub> is replaced by (x + a)x<sub>2</sub> and so on. Find the new average.
- 13. The heights (in cm) of the volley-ball players from team A and team B were recorded as:
  Team A: 180, 178, 176, 181, 190, 175, 187
  Team B: 174, 175, 190, 179, 178, 185, 177
  Which team had the greater average height?
  Find the median of team A and team B.

## SUGGESTED VIDEO

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