

Name: _____

Mean, mode and median are basic statistical tools used to calculate different types of averages.

Mean

Mean is the most common form of average used. To calculate mean, you simply add up all the values of data given and divide by the number of data provided.

Example

Find the mean of 8, 5, 7, 10, 15, 21

Sum of values = $8 + 5 + 7 + 10 + 15 + 21 = 66$

Number of data = 6

Mean = $66/6 = 11$

Median

Median refers to the middle value among a set or series of values after they have been arranged in numerical order. Median thus means the middle of the set of values. When two numbers fall in the middle, you simply add the value of the two numbers and divide by 2 to get the middle of the two numbers.

Example

Arrange these numbers in ascending order and then find the median

First arrange in ascending order 8, 5, 7, 10, 15, 21

= 5, 7, 8, 10, 15, 21

There are 6 numbers on the series and two fall in the middle = 8 and 10

The median = $(8 + 10)/2 = 18/2 = 9$

Mode

Mode refers to the most occurring number or value among a set of values. Note that it is possible not to have a most occurring number and then the answer becomes 'No Mode'

Example

8, 5, 7, 10, 15, 21, 5, 7, 2, 5

Mode refers to the most occurring number 8, 10, 15, 2 and 21 occur once

5 occurs 3 times

7 occurs 2 times

The most occurring number is 5, which occurs three times.

Range

Subtract lowest value from the highest one.

Example

32, 4, 56, 7, 89, 21

Highest is 89 while lowest is 4 so subtract $89 - 4 = 85$

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PRACTICE QUESTIONS

- 1. Find the median of the set of numbers: 1, 2, 3,4,5,6,7,8,9 and 10.**
 - a. 55
 - b. 10
 - c. 1
 - d. 5.5
- 2. Find the median of the set of numbers: 21, 3, 7, 17, 19, 31, 46, 20 and 43.**
 - a. 19
 - b. 20
 - c. 3
 - d. 167
- 3. Find the median of the set of numbers: 100, 200, 450, 29, 1029, 300 and 2001.**
 - a. 300
 - b. 29
 - c. 7
 - d. 4,080
- 4. The following represents age distribution of students in an elementary class. Find the mode of the values: 7, 9, 10, 13, 11, 7, 9, 19, 12, 11, 9, 7, 9, 10, 11.**
 - a. 7
 - b. 9
 - c. 10
 - d. 11
- 5. Find the mode from these test results: 90, 80, 77, 86, 90, 91, 77, 66, 69, 65, 43, 65, 75, 43, 90.**
 - a. 43
 - b. 77
 - c. 65
 - d. 90
- 6. Find the mode from these test results: 17, 19, 18, 17, 18, 19, 11, 17, 16, 19, 15, 15, 15, 17, 13, 11.**
 - a. 15
 - b. 11
 - c. 17
 - d. 19
- 7. Find the mean of these set of numbers: 100, 1050, 320, 600 and 150.**

- a. 333
- b. 444
- c. 440
- d. 320

8. The following numbers represent the ages of people on a bus: 3, 6, 27, 13, 6, 8, 12, 20, 5, and 10. Calculate their mean of their ages.

- a. 11
- b. 6
- c. 9
- d. 110

9. These numbers are taken from the number of people that attended a particular church every Friday for 7 weeks: 62, 18, 39, 13, 16, 37, 25. Find the mean.

- a. 25
- b. 210
- c. 62
- d. 30