Solutions: Finding the Mean, Median, Mode

Now that you have completed the practice problems, review the solutions to see how well you did.

1. What is the mean of the following numbers?

    10, 39, 71, 42, 39, 76, 38, 25

    a. 42
    b. 39
    c. 42.5
    d. 35.5

    Solution: C

2. What number would you divide by to calculate the mean of 3, 4, 5, and 6?

    a. 6
    b. 3
    c. 5
    d. 4

    Solution: D

3. What measure of central tendency is calculated by adding all the values and dividing the sum by the number of values?
    a. median
    b. mean
    c. mode
    d. typical value

    Solution: B

4. The mean of four numbers is 71.5. If three of the numbers are 58, 76, and 88, what is the value of the fourth number?

    a. 64
    b. 60
    c. 76
    d. 82

    Solution: A

5. Determine the mean of the following set of numbers:

    40, 61, 95, 79, 9, 50, 80, 63, 109, 42

    Solution: 62.8

6. The mean weight of five complete computer stations is 167.2 pounds. The weights of four of the computer stations are 158.4 pounds, 162.8 pounds, 165 pounds, and 178.2 pounds respectively. What is the weight of the fifth computer station?

   Solution: 171.6 pounds

7. The mean width of 12 iPads is 5.1 inches. The mean width of 8 Kindles is 4.8 inches.

   a. What is the total width of the iPads?
   b. What is the total width of the Kindles?
   c. What is the mean width of the 12 iPads and 8 Kindles?

   Solution: a) 61.2 feet

   b) 38.4 feet

   c) 4.98 feet

8. The following data represent the number of pop-up advertisements received by 10 families during the past month. Calculate the mean number of advertisements received by each family during the month.

   43   37   35   30   41   23   33   31   16   21

   Solution: 31

9. The following table of grouped data represents the weight (in pounds) of 100 computer towers. Calculate the mean weight for a computer.

Weight (pounds)	Number of Computers
[3 - 5)	8
[5 - 7)	25
[7 - 9)	45
[9 - 11)	18
[11 - 13)	4

   Solution: 7.7

10. A group of customer service surveys were sent out at random.

   The scores were 90, 50, 70, 80, 70, 60, 20, 30, 80, 90, and 20.

   Find the mean score.

   Solution: 60%

11. What is the median of the following numbers?

10, 39, 71, 42, 39, 76, 38, 25

    a. 42.5
    b. 39
    c. 42
    d. 35.5

Solution: 42.5

12. The front row in a movie theatre has 23 seats. If you were asked to sit in the seat that occupied the median position, in which seat would you have to sit?

    a. 1
    b. 11
    c. 23
    d. 12

Solution: 12

13. 13. What is the median score achieved by a student who recorded the following scores on 10 math quizzes?

68, 55, 70, 62, 71, 58, 81, 82, 63, 73

    a. 68
    b. 71
    c. 69
    d. 79

Solution: 69

14. A set of four numbers that begins with the number 32 is arranged from smallest to largest. If the median is 35, which of the following could possibly be the set of numbers?

    a. 32, 32, 36, 38
    b. 32, 35, 38, 41
    c. 32, 34, 36, 35
    d. 32, 36, 40, 44

Solution: C

15. The number of service upgrades sold by each of 30 employees is as follows:

32, 6, 21, 10, 8, 11, 12, 36, 17, 16, 15, 18, 40, 24, 21, 23, 24, 24, 29, 16, 32, 31, 10, 30, 35, 32, 18, 39, 12, 20

What is the median number of service upgrades sold by the 30 employees?

a. 18
b. 21
c. 24
d. 32

Solution: B

16. Which of the following measures can be determined for quantitative data?
    a. Mean
    b. Median
    c. Mode
    d. All of these

Solution: D

17. Which of the following measures can be calculated for qualitative data?

    a. Mean
    b. Median
    c. Mode
    d. All of these

Solution: C

18. What is the term used to describe the distribution of a data set with one mode?

    a. Multimodal
    b. Unimodal
    c. Nonmodal
    d. Bimodal

Solution: B

19. What is the mode of the following numbers?

    12, 11, 14, 10, 8, 13, 11, 9

    a. 11
    b. 10
    c. 14
    d. 8

Solution: A

20. Which of the following measures can have more than 1 value for a set of data?

    a. Median
    b. Mode
    c. Mean
    d. None of these

Solution: B

21. What are the modes of the following sets of numbers?

    a. 3, 13, 6, 8, 10, 5, 6
    b. 12, 0, 15, 15, 13, 19, 16, 13, 16, 16

    Solution: a) 6   b) 16

22. A student recorded her scores on weekly math quizzes that were marked out of a possible 10 points. Her scores were as follows:

    8, 5, 8, 5, 7, 6, 7, 7 , 5, 7, 5, 5, 6, 6, 9, 8, 9, 7, 9, 9, 6, 8, 6, 6, 7

    What is the mode of her scores on the weekly math quizzes?

    Solution: 6 & 7

23. What is the mode of the following numbers, and what word can be used to describe the distribution of the data set?

    5, 4, 10, 3, 3, 4, 7, 4, 6, 5, 11, 9, 5, 7

    Solution: 4 & 5 bimodal

24. The temperature in $^\circ$ F on 20 days during the month of June was as follows:

    70° F, 76° F, 76° F, 74° F, 70° F, 70° F, 72° F, 74° F, 78° F, 80° F,
    74° F, 74° F, 78° F, 76° F, 78° F, 76° F, 74° F, 78° F, 80° F, 76° F

    What is the mode of the temperatures for the month of June?

    Solution: 74° F & 76° F

Resource:

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