

Disclaimer

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Chapter 4 Test



Chapter 4 Test

DIRECTIONS: For this multiple-choice test, select the most appropriate answer for each statement or question.

1. Compute the mean of the following data set:
67, 98, 90, 66
 - a) 66.5
 - b) 78.5
 - c) 80.3
 - d) 16.2

2. Compute the median of the following data set:
12, 33, 87, 101, 56
 - a) 57.8
 - b) 22.5
 - c) 94
 - d) 56

3. Determine the mode of the following data set:
21, 45, 44, 21, 40, 67, 93
 - a) 21
 - b) 45
 - c) 93
 - d) There is no mode



4. Suppose the mean and median of a data set is 101 and 65, respectively. Determine the shape of the distribution.
- Symmetrical
 - Skewed right
 - Skewed left
 - Uniform
5. If 4 points are added to each test score in a data set, what will happen to the mean, median and mode?
- The mean, median and mode will increase by 4 points.
 - The mean, median and mode will decrease by 4 points.
 - The mean, median and mode will not change.
 - The mean, median and mode will increase by 2 points.
6. Compute the range of the following data set:
89, 65, 34, 91
- 91
 - 57
 - 57
 - 34
7. Compute the sample variance of the following data set:
2, 9, 6, 7, 4
- 5.8
 - 7.3
 - 2.4
 - 2.7



8. Compute the sample standard deviation of the following data set: 4, 1, 9, 8
- 10.2
 - 13.7
 - 3.2
 - 3.7
9. If 4 points are added to each test score in a data set, what will happen to the range, variance and standard deviation?
- The range, variance and standard deviation will increase by 4 points.
 - The range, variance and standard deviation will not change.
 - The range, variance and standard deviation will decrease by 4 points.
 - The range, variance and standard deviation will increase by 8 points.
10. Suppose a set of test scores had a sample mean and standard deviation of 81 and 3, respectively. What is the z-score of a student who scored a 78?
- 78
 - 1
 - 1
 - 0
11. A student took two tests. She scored a 75 on a sociology test that had a sample mean of 70 and a sample standard deviation of 2. She scored an 85 on a physics test that had a sample mean of 80 and a sample standard deviation of 5. On which test did the



student perform better? In other words, on which test did the student have a better relative position?

- a) Sociology test
- b) Physics test
- c) She performed the same on each test.
- d) There is not enough information to answer the question.

12. Determine the 75th percentile of the following data set:

10, 25, 35, 20

- a) 22.5
- b) 30
- c) 35
- d) 15

13. Outliers are _____.

- a) equal to the mean
- b) typical observations that fall in the middle of the data set
- c) extremely large or small observations
- d) equal to the median

14. Which of the following is the five-number summary?

- a) Mean Q1 Med Q3 Mode
- b) Min Q1 Med Q3 Max
- c) Min Q1 Mean Q3 Max
- d) Mean Q1 IQR Q3 Max



15. Which of the following is considered a resistant measure?
- a) Median
 - b) Standard deviation
 - c) Mean
 - d) All of the above



Answers

1. 80.3
2. 56
3. 21
4. Skewed right
5. The mean, median and mode will increase by 4 points.
6. 57
7. 7.3
8. 3.7
9. The range, variance and standard deviation will not change.
10. -1
11. Sociology test
12. 30
13. Extremely large or small observations
14. Min Q1 Med Q3 Max
15. Median

