

Quiz 4 Review—Central Tendency

Name: _____

ISN pages 21-28

Vocabulary—Use your notes to find the exact answer that fits each blank.

1. The fifth number in the five number summary is _____.
2. An equal number of values are larger than and smaller than this measure of central tendency, _____.
3. The third number in the five number summary is _____.
4. The first quartile means that _____% of data points lie below Q_1 and that _____% of data points lie above Q_1 .
5. The third quartile means that _____% of data points lie below Q_3 and that _____% of data points lie above Q_3 .
6. A method of computing a kind of arithmetic mean of a set of numbers in which some elements of the set carry more importance than others is called _____ average.
7. The first number in the five number summary is _____.
8. The central tendency that defined as the average of the set of data is called the _____.
9. The _____ is the central tendency that appears most often in a set of data
10. The second number in the five number summary is _____.
11. A _____ is a graphical depiction of groups of numerical data through their quartiles.
12. The _____ is the difference between the first and third quartiles.
13. Any data point that is more than 1.5 times the IQR above the third quartile, or 1.5 times the IQR below the first quartile is considered an _____.
14. The fourth number in the five number summary is _____.
15. _____ is defined as the average distance of the data points from the mean
16. _____ tells how far apart the data points are in a distribution.
17. The midpoint of the data distribution is the _____.
18. An _____ is clearly separated from the main body of observations.
19. A histogram's shape is _____ if the tail or the curve is on the right.

20. If a histogram's shape looks similar to a bell curve (like a mirror) it is classified as _____
21. If a histogram's shape has two defined peaks then it is said to be _____
22. The overall pattern of a distribution is determined by these four descriptions: _____, _____, _____, and _____
23. If the tail of a histogram's distribution is to the left, then the shape is said to be _____
24. The overall look of a data distribution is called the _____.

Work Problems—*On a separate sheet of paper answer each question fully.*

25. Find mean, median, and mode of the following data set, {11, 5, 9, 13, 8, 9, 9, 11, 10, 8}.

26. In the statistics course tests are 50%, quizzes are 30%, and homework is 20% of a student's overall grade. Homework grades: {100, 80, 85, 100, 80, 50}, quiz grades: {80, 80, 100, 60, 100}, and test grades: {85, 98}. Find the overall statistics grade. _____
27. Find the 5# Summary and IQR of the following data set, {75, 80, 75, 77, 75, 80, 83, 80, 71, 70}.

28. James has taken the IQ test 8 times and his scores are 96, 118, 108, 105, 56, 107, 95, and 103. Find the standard deviation. _____
29. Find the standard deviation of the following data set {3, 8, 1, 6, 4, 12, 13, 5, 8} _____
30. Find mean, median, and mode of the following data set, {50, 45, 48, 59, 56, 53, 50, 48, 52, 49, 50, 51}

31. Find the 5# Summary and IQR of the following data set, {35, 45, 42, 41, 25, 36, 27, 41, 34, 73, 26, 58, 29, 20, 28, 35, 48, 43, 42, 45}. _____
32. Find the mean, median, and mode of the following data set {3, 8, 1, 6, 4, 12, 13, 5, 8}

33. Find the standard deviation of the following data set, {11, 5, 9, 13, 8, 9, 9, 11, 10, 8}. _____
34. In the statistics course tests are 50%, quizzes are 25%, homework is 15%, and participation is 10% of a student's overall grade. Participation grades: {100, 100, 100, 100, 90}, Homework grades: {100, 80, 95, 100, 80, 70}, quiz grades: {90, 80, 100, 60, 98}, and test grades: {89, 91}
Find the overall statistics grade. _____

Constructions—On a separate sheet of paper draw the following

35. Find the five-number summary. Draw a box plot of the following data set. Make sure to check for outliers.
{-34, 2, 11, 30, -4, 29, 5, 24, 8, 10, 5, 10, 2, 12, 5, 15, 20, 23, 25, 10, 25, 29, -1, 30, 0, 6, 30, 15, 5, 26, 52, 17}
36. Find the five-number summary. Draw a box plot of the following data set. Make sure to check for outliers.
{35, 45, 42, 41, 25, 36, 27, 41, 34, 73, 26, 58, 29, 20, 28, 35, 48, 43, 42, 45}.
37. Find the five-number summary. Draw a box plot of the following data set. Make sure to check for outliers.
{78, 70, 71, 25, 115, 60, 65, 64, 68, 84, 12, 50, 90, 120, 47, 88}.
38. Find the five-number summary. Draw a box plot of the following data set. Make sure to check for outliers.
{2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 80}.

Overall Pattern—Describe the SCSO of each of these graphical displays.

