Name: _____ **Class:** _____ **Date:** _____ **ID: A**

Algebraic Concepts - Data Analysis PRACTICE Test

Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

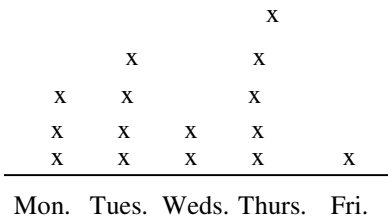
____ 1. For which set of data is the mean 8.1?
a. 6.6, 7.5, 8.1, 9.2, 9.8
b. 8.1, 8.1, 8.7, 8.8, 9.9
c. 4.2, 6.7, 8.1, 5.5, 9.1
d. 8.5, 8.0, 8.0, 9.0, 7.0

____ 2. For which set of data is the median 15?
a. 89, 75, 90, 15, 74, 88, 89
b. 23, 35, 77, 81, 64, 15, 44
c. 14, 15, 15, 15, 18, 18, 19, 19, 20
d. 8, 20, 17, 21, 14, 15, 9

____ 3. For which set of data is the mode 3?
a. 6, 2, 7, 6, 6, 6, 3, 1, 3, 9, 3
b. 5, 7, 3, 8, 4, 3, 5, 6, 1, 3, 6
c. 3, 12, 8, 5, 1, 4, 11, 13, 11, 2
d. 0, 1, 1, 2, 2, 3, 6, 8, 8, 9, 9

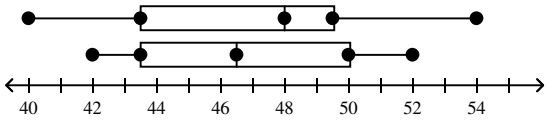
____ 4. Which set of data has a mean of 6 and a mode of 5?
a. 5, 12, 1, 5, 7 b. 3, 8, 5, 9, 10 c. 2, 11, 5, 9, 3 d. 10, 7, 5, 8, 5

____ 5. The line plot shows on which day of the week you and your classmates were born. Which statement is NOT true?



a. Two students were born on a Wednesday.
b. There are 15 students in your class.
c. More students were born on a Tuesday than on a Monday.
d. The range of the data is 5.

____ 6. Use the two box-and-whisker plots to determine which statement is true.



a. They have the same median.
b. They have the same range.
c. The upper quartiles are equal.
d. The lower quartiles are equal.

Short Answer

7. Display the set of data in a line plot.
58, 55, 54, 61, 56, 54, 61, 55, 53, 54

8. Over the first five years of owning her car, Gina drove about 12,700 miles the first year, 15,478 miles the second year, 12,675 the third year, 11,850 the fourth year, and 13,075 the fifth year.
   a. Find the mean, median, and mode of this data.

   b. Explain which measure of central tendency will best predict how many miles Gina will drive in the sixth year.

   .

   Find the range.

9. 3 –9 7 –1 5 –4 2

10. Find the mean and range.
    37 13 10 14 37 10 25 20

    .

11. Make a stem-and-leaf plot for the following set of data.
    1.1, 1.3, 1.8, 2.2, 2.6, 2.8, 3.1, 3.8

    .

12. Find the mean, median, and mode of this data: 49, 57, 49, 57, 49, 51, 54. If necessary, round to the nearest tenth.

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13. Which measure of central tendency best describes this situation: the favorite fruit sold in the cafeteria? Explain.

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14. Use the frequency table to determine how many students received a score of 80 or better on an English exam.

Score	Frequency
50–59	4
60–69	6
70–79	8
80–89	5
90–100	1

15. Draw a line plot for the frequency table.

Number	1	2	3	4	5	6
Frequency	4	5	3	2	2	6

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16. Find the range of the data.
Scores: 89, 93, 96, 88, 96, 82, 75, 94, 97, 86

17. Display the set of data in a frequency table and a line plot.
90 92 93 91 92 92 94 96

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Draw the box-and-whisker plot for the data.

18. 49, 27, 49, 37, 35, 33, 25, 34, 42, 33, 25, 32, 36, 50, 44

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Compare the data sets by making two box-and-whisker plots above one number line.

19. Set X: 14, 11, 7, 1, 5, 4, 6, 13, 2, 12, 13, 4, 3, 14, 15, 15
Set Y: 10, 9, 7, 4, 11, 15, 15, 8, 6, 9, 4, 10, 7, 13, 4, 5

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Create a box-and-whisker plot for the data set.

20. 97, 75, 90, 100, 98, 91, 97, 75

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21. 16, 1, 7, 20, 10, 13, 1

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