**Math 6** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
**Unit 6: Statistics Post-Test REVIEW** Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is a measure of center? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Give **2** examples of a measure of *center: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

What is a measure of spread?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Give **2** examples of a measure of *spread*. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What information does a box plot provide? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3-6. Big Bob scored the following points at eight basketball games: 21, 24, 9, 11, 16, 7, 24. Calculate the following:

|  |  |
| --- | --- |
| MEAN |  |
| MEDIAN |  |
| MODE |  |
| RANGE |  |

7. Which set of intervals CAN be used to create a histogram for data that ranges from 5 to 99?

 A. 0-20, 20-40, 40-60, 60-80, 80-100, 100-120

 B. 3-6, 11-50, 52-82, 85-120

 C. 1-20, 21-40, 41-60, 61-80, 81-100

 D. 1-20, 21-80, 81-82, 83-89, 90-100

8. Give one example of a statistical question. What makes it statistical?

9. Data from unit test grades from 3 different classes are displayed in the box plots below. Compare and contrast the data.

10-15. Use the following data to create a box plot:

 **Identify:**

**Ages of Cal’s Cousins**

10 18 17 12 13 15 15 14 14

 Minimum: \_\_\_\_\_\_\_\_

 Lower Quartile: \_\_\_\_\_\_\_\_\_

 Median: \_\_\_\_\_\_\_\_\_

Upper Quartile: \_\_\_\_\_\_\_\_\_

 Maximum: \_\_\_\_\_\_\_\_\_\_

16. According to the histogram on the left, how many students can do more than 49 jumping jacks in 1 minute? \_\_\_\_\_\_\_\_\_

17. How many students participated in the survey?\_\_\_\_\_\_\_\_\_\_\_\_\_\_

18. Which interval is the mode of the histogram?\_\_\_\_\_\_\_\_\_\_\_\_\_\_

19. How many people did EXACTLY 45 jumping jacks?\_\_\_\_\_\_\_

20. Create a dot plot of the following data:

**Sit-Ups Completed by Students During a Fitness Test**

13 13 10 14 15 12

17 12 18 14 15 12

21. Circle the set of intervals CAN be used for the data given in problem # 6. Explain why the others cannot be used.

 A. 0-2, 3-5, 6-8, 9-11, 12-14 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 B. 0-1, 2-5, 6-7, 8-15\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 C. 1-2, 3-4, 5-6, 7-8, 9-10 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 D. 0-3, 3-6, 6-9, 10-12\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

22. Baddat Skool’s test scores are 72, 68, 76. What does he need to score on the next test for his test

 average to be a 75?

23. Which measure is MOST affected by an outlier?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A. | Mean | B. | Median | C. | IQR | D. | Mode |

24. Identify the interquartile range from the box plot below. \_\_\_\_\_\_\_\_\_\_\_\_\_

 0

5

1020

15

2030

25

3040

35

4050

25. Look at the box plot in #24. What do you know about the data?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

26. At a car dealership, the salespeople sold the following numbers of cars during 2018.

28, 15, 35, 19, 22, 59, 23, 28, 19, 11

 Determine the following:

1. the mean = \_\_\_\_\_\_\_\_\_\_\_ b. the median = \_\_\_\_\_\_\_\_\_\_\_\_ c. the mode = \_\_\_\_\_\_\_\_\_\_\_

d. the range = \_\_\_\_\_\_\_\_\_\_\_ e. the IQR = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ f. the MAD = \_\_\_\_\_\_\_\_\_\_\_\_\_

g. outlier(s) = \_\_\_\_\_\_\_\_\_\_\_\_\_ h. minimum = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ i. maximum = \_\_\_\_\_\_\_\_\_\_\_\_

27. According to the problem above, the “typical” salesperson sold \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cars during 2018.

 Explain your answer.

28. Determine a set of data that has a mean of 12, a range of 10, and a median of 14.

29. Elisabeth’s test scores are 72, 90, 94, 83, and 85. If she needs to maintain an 85 test average, what

 is the minimum score she needs on her next test?

30. Answer the following questions about the data in the dot plot.

1. mean = \_\_\_\_\_\_\_\_ b. median = \_\_\_\_\_\_\_

c. range = \_\_\_\_\_\_\_\_ d. mode = \_\_\_\_\_\_\_\_

e. Describe at least 3 attributes about the SHAPE of the data.