

NAME: _____

1. 080501a, P.I. A.S.4

The weights of all the students in grade 9 are arranged from least to greatest. Which statistical measure separates the top half of this set of data from the bottom half?

- [A] mean [B] median
[C] average [D] mode

2. 080402a

Rosario and Enrique are in the same mathematics class. On the first five tests, Rosario received scores of 78, 77, 64, 86, and 70. Enrique received scores of 90, 61, 79, 73, and 87. How much higher was Enrique's average than Rosario's average?

- [A] 4 points [B] 3 points
[C] 2 points [D] 15 points

3. 080008a

On an English examination, two students received scores of 90, five students received 85, seven students received 75, and one student received 55. The average score on this examination was

- [A] 77 [B] 75 [C] 76 [D] 79

4. 080535a

Seth bought a used car that had been driven 20,000 miles. After he owned the car for 2 years, the total mileage of the car was 49,400. Find the average number of miles he drove *each month* during those 2 years.

5. 010005a

What was the median high temperature in Middletown during the 7-day period shown in the table below?

Daily High Temperature in Middletown	
Day	Temperature (°F)
Sunday	68
Monday	73
Tuesday	73
Wednesday	75
Thursday	69
Friday	67
Saturday	63

- [A] 75 [B] 69 [C] 70 [D] 73

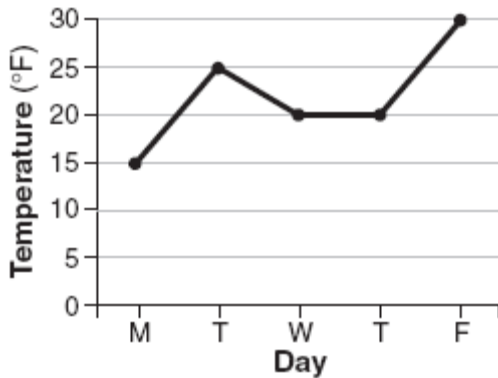
6. 060637a

Sara's test scores in mathematics were 64, 80, 88, 78, 60, 92, 84, 76, 86, 78, 72, and 90. Determine the mean, the median, and the mode of Sara's test scores.

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7. 080608a

The accompanying graph shows the high temperatures in Elmira, New York, for a 5-day period in January.



Which statement describes the data?

- [A] mean < mode [B] median = mode
[C] median = mean [D] mean = mode

8. 010907ia, P.I. A.S.4

Alex earned scores of 60, 74, 82, 87, 87, and 94 on his first six algebra tests. What is the relationship between the measures of central tendency of these scores?

- [A] mean < median < mode
[B] mean < mode < median
[C] mode < median < mean
[D] median < mode < mean

9. 010118a, P.I. A.S.4

From January 3 to January 7, Buffalo recorded the following daily high temperatures: 5°, 7°, 6°, 5°, and 7°. Which statement about the temperatures is true?

- [A] mean < median [B] median = mode
[C] mean = median [D] mean = mode

10. 080804ia, P.I. A.S.4

Which statement is true about the data set 3, 4, 5, 6, 7, 7, 10?

- [A] mean > mode [B] mean < median
[C] mean = median [D] mean = mode

11. 010315a, P.I. A.S.4

The ages of five children in a family are 3, 3, 5, 8, and 18. Which statement is true for this group of data?

- [A] mode > mean [B] median > mean
[C] mean > median [D] median = mode

12. 010618a, P.I. A.S.4

Melissa's test scores are 75, 83, and 75.

Which statement is true about this set of data?

- [A] mode < median [B] mode = median
[C] mean = median [D] mean < mode

13. 010321b, P.I. A.S.4

Two social studies classes took the same current events examination that was scored on the basis of 100 points. Mr. Wong's class had a median score of 78 and a range of 4 points, while Ms. Rizzo's class had a median score of 78 and a range of 22 points. Explain how these classes could have the same median score while having very different ranges.

[1] B _____

[2] B _____

[3] D _____

[2] 1,225, and appropriate work is shown, such as solving an equation or writing an explanation.

[1] Appropriate work is shown, but one computational error is made.

or [1] Appropriate work is shown, but one conceptual error is made.

or [1] Appropriate work is shown, but the conversion from years to months is incorrect, but an appropriate solution is found.

or [1] 1,225, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[4] incorrect procedure.

[5] B _____

[3] Mean = 79, median = 79, and mode = 78, and appropriate work is shown.

[2] Appropriate work is shown, but only two of the three measures of central tendency are determined and identified correctly.

or [2] Appropriate work is shown and all three measures of central tendency are determined correctly, but the measures are not identified or are identified incorrectly.

[1] Appropriate work is shown, but only one of the three measures of central tendency is determined and identified correctly.

or [1] Mean = 79, median = 79, and mode = 78, but no work is shown.

[0] 79, 79, and 78, but no work is shown, and the answers are not identified or are identified incorrectly.

or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an

[6] obviously incorrect procedure.

[7] B _____

[8] A _____

[9] C _____

[10] C _____

[11] C _____

[12] B _____

[2] An appropriate explanation is given, such as:

One very high or very low score in either class would have a great effect on the range for that class, but might not affect the median at all. The range is the difference between the two most extreme values, the lowest and the highest. The median, being the middle value, is not very sensitive to outliers or to extreme values.

or [2] Specific examples are shown to illustrate the situation.

[1] An understanding of median and range is demonstrated, but the specific situation is not explained.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[13] incorrect procedure.