

NAME: _____

A.S.4: Compare and contrast the appropriateness of different measures of central tendency for a given data set.

1. 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 = mode [B] median = mode
[C] mean = median [D] mean < median

2. 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] mean > median
[C] median = mode [D] median > mean

3. 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] mean = median [B] mode < median
[C] mean < mode [D] mode = median

4. 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] mode [B] mean
[C] average [D] median

5. 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.

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[1] C _____

[2] B _____

[3] D _____

[4] D _____

[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

[5] incorrect procedure.