

## Section 16-5: Measures of Central Tendency and Grouped Data

1. 080008a, P.I. A2.S.3

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

2. fall0737ia, P.I. A.S.4

The values of 11 houses on Washington St. are shown in the table below.

Value per House	Number of Houses
\$100,000	1
\$175,000	5
\$200,000	4
\$700,000	1

Find the mean value of these houses in dollars. Find the median value of these houses in dollars. State which measure of central tendency, the mean or the median, *best* represents the values of these 11 houses. Justify your answer.

3. 060507b, P.I. A2.S.3

What is the mean of the data in the accompanying table?

Scores ( $x_i$ )	Frequency ( $f_i$ )
25	3
20	2
11	5
10	4

[A] 14.5      [B] 16      [C] 11      [D] 15

4. 010807b, P.I. A2.S.3

Mayken collected data about the size of the honors classes in her school building. This set of data is shown in the accompanying table.

Class Size	Frequency
8	1
10	3
14	2

Which statement about the range of this sample is true?

[A] range > mean      [B] range < mean  
[C] range = mean  
[D] range < standard deviation

[1] C

[4] Mean = 225,000, median = 175,000, and the median is stated to be the best measure of central tendency, an appropriate justification is given, and appropriate work is shown.

[3] Appropriate work is shown, but one computational error is made, but an appropriate measure of central tendency is stated, and an appropriate justification is given.

or [3] Mean = 225,000, median = 175,000, and the median is stated to be the best measure of central tendency, but no justification is given.

[2] Appropriate work is shown, but two or more computational errors are made, but an appropriate measure of central tendency is stated, and an appropriate justification is given.

or [2] Appropriate work is shown, but one conceptual error is made.

or [2] Appropriate work is shown to find mean = 225,000 and median = 175,000, but no further correct work is shown.

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

or [1] Mean = 225,000 and median = 175,000, but no further work is shown.

[0] Mean = 225,000 or median = 175,000, but no further work is shown.

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

[2] obviously incorrect procedure.

[3] D

[4] B