

HW Quiz Review Statistical Measures

1. The numbers of seconds that it takes 10 contestants on a television show to cross a canyon on a zipline are represented by the data set {43, 41, 62, 40, 44, 43, 44, 46, 45, 41}. Find the mean, median, and mode of the data with and without the outlier. Which measure does the outlier affect the most?

	With Outlier	Without Outlier
Mean	<input type="text"/> sec	<input type="text"/> sec
Median	<input type="text"/> sec	<input type="text"/> sec

none
 41
 43
 43.5
 44
 44.9

Find the mode(s) of the data with the outlier.

- 41
 43
 43.5
 44
 44.9
 There is no mode.

Find the mode(s) of the data without the outlier.

- 41
 43
 43.5
 44
 44.9
 There is no mode.

Which measure does the outlier affect the most?

- Mean
 Median
 Mode

2. **NUMBER SENSE** The expressions below form a data set. Assume $x > 0$.

$$\{3x, 9x, 4x, 23x, 6x, 3x\}$$

- a. Find the mean, median, and mode of the data.

The mean is .

The median is .

The mode is .

- b. Is there an outlier? If so, what is it?

- Yes
 No

The outlier is .

$$\begin{array}{c} \blacksquare 3x \\ \hline \blacksquare 4x \\ \hline \blacksquare 6x \\ \hline \blacksquare 9x \\ \hline \blacksquare 23x \end{array}$$

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3. Find the mean and median of the data.

$$4, 8, 11, 6, 4, 5, 9, 10, 10, 4$$

The mean is .

The median is .

Find the mode(s) of the data.

- 4
 7
 7.1
 11
 There is no mode.

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7. **MODELING REAL LIFE** The table shows the number of points scored by players on a sixth-grade basketball team in a season.

Points Scored					
21	53	74	82	84	93
103	108	116	122	193	

- a. Find the range and interquartile range of the data.

The range is points.

The interquartile range is points.

- b. Identify the outlier(s) in the data set.

21 points

53 points

122 points

193 points

Find the range and interquartile range of the data set without the outlier(s).

The range without the outlier(s) is points.

The interquartile range without the outlier(s) is points.

Which measure does the outlier or outliers affect more?

Range

Interquartile range

- c. Which measure better represents the data?

Range

Interquartile range

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8. Find and interpret the interquartile range of the data.

Social Media Comments			
4	18	1	32
10	36	16	7
44	3	7	15

The interquartile range is units.

The middle half of the data vary by no more than units

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