

Quiz Chapter 12

Your answers: shade in the cell that best completes the statement or answers the question

	1	2	3	4	5
a					
b					
c					
d					
e					

Quiz Chapter 12

1. According to a 2015 report by the *New York Times* and the Equilar 200 Highest-Paid CEO rankings, the median pay for these 200 CEOs was \$17.6 million. An examination of the pay distribution finds a handful to be very high (over a \$100 million) with most "only" making eight-figure incomes. One would expect the mean to be

- a. less than the median because salary distributions are skewed to the left.
- b. less than the median because salary distributions are skewed to the right.
- c. greater than the median because salary distributions are skewed to the left.
- ☒ d. greater than the median because salary distributions are skewed to the right.

2. The possible values of the standard deviation s of a set of observations are

- a. s can be any number, positive, 0, or negative.
- ☒ b. s can be 0 or positive, but not negative.
- c. s can be positive, but not 0 or negative.
- d. s must be between -1 and 1 .
- e. s must be between -1 and 1 , but cannot be 0.

Quiz Chapter 12

The following is a stemplot of 12 exam scores:
(The stem is the tens place and the leaf is the ones place.)

6		8
7		66
8		0488
9		22666

see separate file

3. The first and third quartiles are, respectively,
- a. 76 and 92.
 - b. 78 and 94.
 - c. 94 and 78.
 - d. 92 and 76.
 - e. None of the above
4. The five numbers in the five-number summary are
- a. the five smallest observations.
 - b. the middle five observations.
 - c. the mean, the median, the maximum, the standard deviation, and the sample size.
 - d. x_1 , x_2 , x_3 , x_4 , and x_5 .
 - ☒ e. the median, the first quartile, the third quartile, the minimum, and the maximum.

Quiz Chapter 12

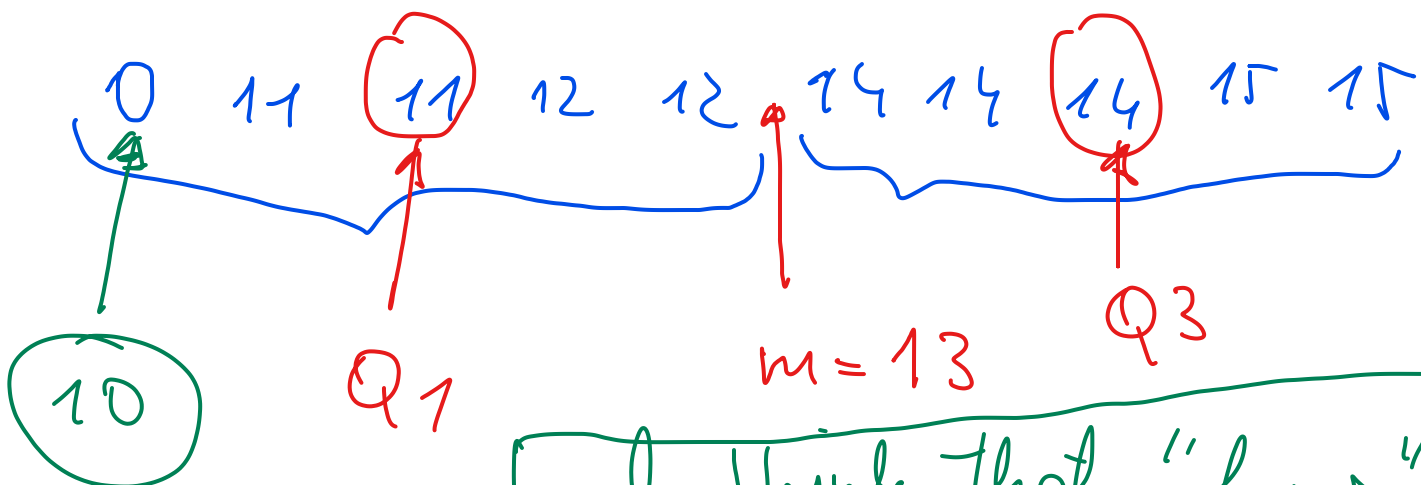
Here are the number of text messages that each of a group of students sent during a recent statistics class:

12 14 0 12 11 14 11 15 15 14

(Handwritten notes: 0 is circled in red, with an arrow pointing to it from the number 10 written below. Brackets are drawn under 12, 14, 11, 14, 11, 15, 15, and 14.)

5. The data contain one low outlier (0, or no text messages). Which of the results for the previous four questions would change if this were 10 messages instead of none? (There is *no* need to calculate new values.)

- ☒ ? a. All four would change. X
- ☐ b. The mean, the third quartile, and the standard deviation would change. X
- ☒ c. The mean and the standard deviation would change.
- ☒ d. Only the mean would change.
- ☒ ? e. None of the four would change.



I think that "four" means the mean, the st. dev., and Q1 & Q3

Name: _____ Class: _____ Date: _____

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Answer Key

1. d

2. b

3. b

4. e

5. c