L9 HW

- Due Feb 12 at 11:59pm
- Points 14
- Questions 14
- Time Limit None
- Allowed Attempts 3

Instructions

You get two attempts on all homework quizzes.

In all quizzes and homeworks in this course, round your answers to THREE DECIMAL places unless otherwise indicated.

Take the Quiz Again

Attempt History

	Attempt	Time	Score
KEPT	**Attempt 2**	3 minutes	14 out of 14
LATEST	**Attempt 2**	3 minutes	14 out of 14
	Attempt 1	14 minutes	10 out of 14

⚠ Answers will be shown after your last attempt
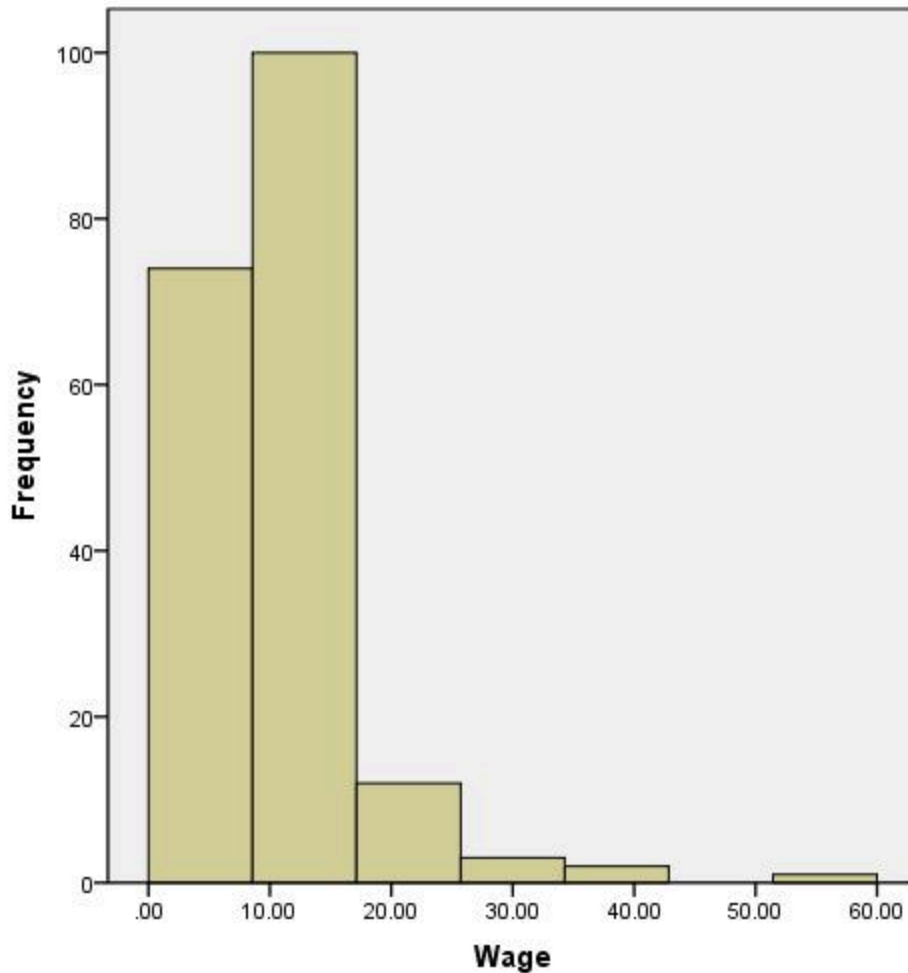
Score for this attempt: 14 out of 14
Submitted Feb 11 at 12:55pm
This attempt took 3 minutes.
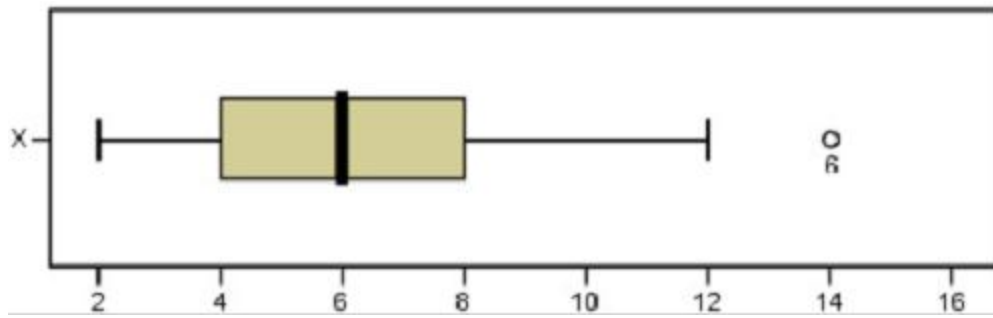
⣿

Question 1
1 / 1 pts

The teacher recorded the mean and median of the hourly wage for each student. Unfortunately, he forgot to label them. The numbers he wrote down were: $11.25/hour and $9.38/hour. Which would be the mean and which would be the median?

○ The mean is $9.38/hour. The median is $11.25/hour.

◉ The mean is $11.25/hour. The median is $9.38/hour.

○ This cannot be determined from the information given

Use the following information to answer the next 3 questions.

The number of hours students spent studying for an exam were recorded. The data are represented by the boxplot below.

Question 2

1 / 1 pts

What is the 75th percentile of the recorded study times?

○ 2

○ 4

◉ 8

○ 10

○ 12

○ This cannot be determined from the boxplot

Question 3

1 / 1 pts

Approximately what percentage of the data lie between 4 and 8 hours?

○ about 25%

○ about 33%

◉ about 50%

○ about 75%

○ This cannot be determined from the boxplot.

Question 4

1 / 1 pts

What is the standard deviation of the data recorded in the boxplot?

○ 2

○ 4

○ 10

◉ This cannot be determined from the boxplot

Question 5

1 / 1 pts

Suppose you take the Medical College Admission Test (MCAT) and your score is the 32nd percentile. How do you interpret this result?
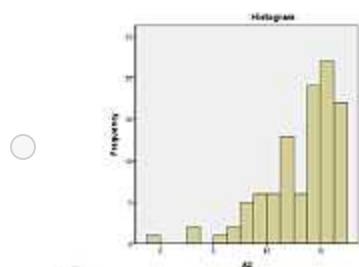
○ You scored 32 points higher than the average person who took the exam.

○ 32% of the people who took the exam scored higher than you did.

○ You answered only 32% of the questions correctly.

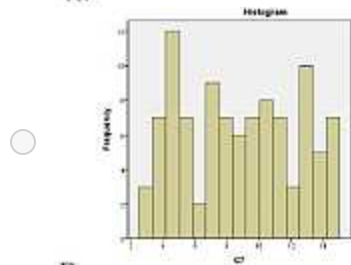◉ You scored as high as or higher than 32% of the people who took the exam.
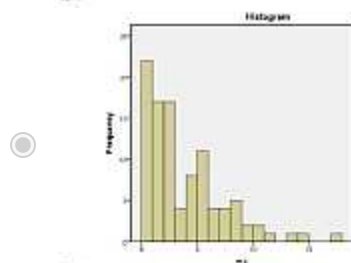
::::

Question 6

1 / 1 pts

Which one of the following histograms was made from data that are definitely skewed right?
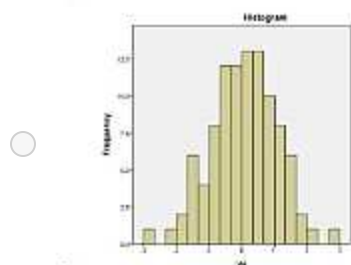
○
A.

○
B.

◉
C.

○
D.

::::

Question 7

1 / 1 pts

Which of the following sets of numbers has the largest standard deviation? (No calculations are required.)

○ {4,5,6,7}

○ {12,13,14,15}

○ {18,18,18,18}

◉ {1,2,9,10}

Use the following information to answer the next 2 questions.

For a statistics project, one group of students studied the ages of students on the BYU-Idaho campus. They collected data from a random sample of $n = 100$ students. The sample mean was 21.2 and the sample standard deviation was 2.61. An excerpt of their data is given below.

ID	Gender	Age
1	Female	21
2	Male	18
3	Male	12 (error)
4	Female	20
:	:	:
99	Male	25

The group notices an error in their data. The age of one of the males (ID=3) was entered incorrectly. He is actually 21 years old.

Question 8

1 / 1 pts

When the error is corrected, what will happen to the sample mean?

◉ The mean will increase.

○ The mean will decrease.

○ The mean will stay the same.

○ It is not possible to determine this without the full data set.

Question 9

1 / 1 pts

When the error is corrected, what will happen to the sample median?

○ The median will increase.

○ The median will decrease.

○ The median will stay the same.

◉ It is not possible to determine this without the full data set.

Question 10

1 / 1 pts

Test scores were recorded for students in a statistics class. The scores for the first test had a standard deviation of 3.8 points. The scores from the second test had a standard deviation of 4.8 points. Choose the correct statement below.

○ The average test grade rose by 1 point

○ The scores of the second test were closer together than the first

○
The higher standard deviation of the second test indicates higher average scores on the second test than on the first

◉ None of the above are true

Question 11
1 / 1 pts

Open the data file: **OldFaithful-1.xlsx**
(https://byui.instructure.com/courses/398828/files/159316632/download?wrap=1) ↓
(https://byui.instructure.com/courses/398828/files/159316632/download?download_frd=1)

The data contains a variable called Duration which is the time in minutes that Old Faithful's eruption lasts. Find the mean and standard deviation of the time eruptions last.

Enter the mean:

3.488

Question 12
1 / 1 pts

Enter the standard deviation:

1.141

Question 13
1 / 1 pts

Which of the following statements best describes the standard deviation.

○ The standard deviation helps me decide the value that the data is centered around.

○ The standard deviation helps me decide how far the data points are from each other.

◉ The standard deviation helps me decide how far the data points are from the mean.

○ The higher the standard deviation the closer the data points are to the mean.

Question 14

1 / 1 pts

Which of the following data sets is probably left skewed?

○ A data set which has the following information: mode = 10, median = 13, mean = 15.

○ A data set which has the following information: mode = 10, median = 10, mean = 10.

○ A data set which has the following information: mode = 10, median = 11, mean = 11.

● A data set which has the following information: mode = 15, median = 11, mean = 7.

Quiz Score: 14 out of 14