Results

SARDA, SANJIT

This assessment has been regraded. Question 3 has been affected.

87.5%

10.5
Out of 12 points

08:21
Time for this attempt

Your Answers:

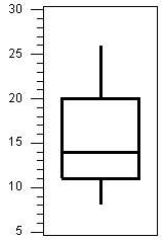
1 1 / 1 point

Suppose the number of hours of sleep students get per night has a unimodal and symmetric distribution with a mean of 7 hours and a standard deviation of 1.5 hours. Approximately what percent of students sleep more than 8.5 hours per night?

- 5%
- ✓ 16%
- 34%
- 68%
- 84%

2 0 / 1 point

Answer the questions using the boxplot below



Within which interval would you expect to find the largest number of observations?

- 5-11
- ✗ 11-14

Correct Answer: **All the intervals contain approximately equal number of observations**

- 14-20
- 20-30
- All the intervals contain approximately equal number of observations

This question has been regraded.

3 Previous score 1 / 1 point Regrade score 1 / 1 point

A candy company produces packets of candy every day. Each packet they produce has a slightly unique weight. The mean of the weights is 66g, and the variance of the weights is 19g.

What is the minimum weight of a packet of candy with a z-score of 0.2? (round to the nearest tenth as needed)

✗ 67

Correct Answer: **69.8**

4 1 / 1 point

Which of the following is correct about Z-scores?

- Z-score has the same units as the standard deviation
- Z-score measures the distance between an observation and the median.
- A positive Z-score is more unusual than a negative Z-score
- ✓ Z-scores should only be used when distribution is unimodal and symmetric

5 0.5 / 1 point

A study was conducted in order to determine whether longevity (the length a person lives) is related to a person's handedness (right-handed/left-handed).
Which of the following would be the best for examining this type of relationship? (Select all that apply)

- ☐ Two-way table
- ✓ ☑ Five-number summary
- ✓ ☑ Boxplots
- ✗ ☑ Grouped bar chart

Selected Answer - Incorrect

6 1 / 1 point

The test scores of 20 students are listed below.
44, 46, 52, 56, 60, 63, 66, 71, 73, 80, 82, 83, 86, 88, 90, 91, 92, 94, 97, 98
Find the interquartile range for the sample using the method introduced in class.

- ✓ 29
- 29.5
- 28
- 30

7 1 / 1 point

Which of the following information cannot be obtained from a boxplot?

- ✓ Mode
- Potential outliers
- Inter-Quartile Range
- Range
- Symmetry/skewness

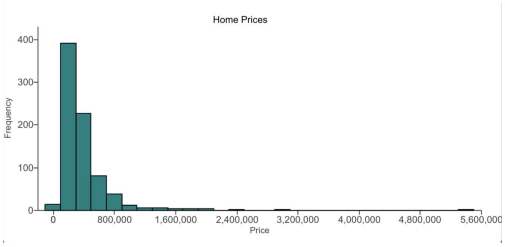
8 1 / 1 point

Which of the following statements is incorrect about the center of a distribution?

- The mode is mostly used for categorical data, but the least used for numerical data
- ✓ The median is easily affected by extreme values in the data
- The mean, mode and median are equal in a symmetric distribution
- The mean does not represent the typical value well in an highly skewed distribution

9 1 / 1 point

Home prices in a particular city for a recent month are shown in the accompanying histogram.



Which of the following statements is correct?

- The distribution is right-skewed and the median is greater than the mean
- The distribution is symmetric because the left and right sides of the distribution are roughly equally balanced around the mean.
- Mean and standard deviation should be used to describe the distribution
- ✓ **Median and IQR should be used to describe the distribution**

10 1 / 1 point

A sample of students at a college was asked the fastest speed (mpg) they have driven a car.

The five-number summary for the data is:
Min = 72, Q1 = 100, Median = 110, Q3 = 120, Max = 156

Suppose a boxplot was constructed, which of the following is correct?

- The lower whisker would stop at the value 70
- ✓ **The maximum value would be marked as a potential outlier**
- The minimum value would be marked as a potential outlier
- The upper whisker of the boxplot would extend to the value 156

11 1 / 1 point

A store asked 200 customers whether or not they were satisfied with the service. The purpose of this study was to examine the relationship between the customer's satisfaction and gender.
This is an example of which type of relationship?

- Case: Numerical -> Categorical
- Case: Categorical -> Numerical
- ✓ **Case: Categorical -> Categorical**
- Case: Numerical -> Numerical

12 1 / 1 point

The following data set shows the number of floors in the tallest buildings in some cities.

City	# Floors
A	80
B	100
C	90
D	90
E	120

Which of the given observations is furthest from the mean and therefore contributes most to the standard deviation?

- City A
- City B
- City C
- City D
- ✓ **City E**