# PRINTABLE VERSION

## Quiz 3

You scored 100 out of 100

**Question 1**

Your answer is CORRECT.

The values for Q1 and Q3 for the data set below are Q1=124 and Q3=187. Are there any outliers for this data? If so, what are they?

[88, 100, 118, 124, 125, 132, 139, 144, 155, 178, 186, 188, 193, 202, 284]

**a)** There are no outliers.

**b)** The outliers are: [88, 284]

**c)** The outliers are: 284

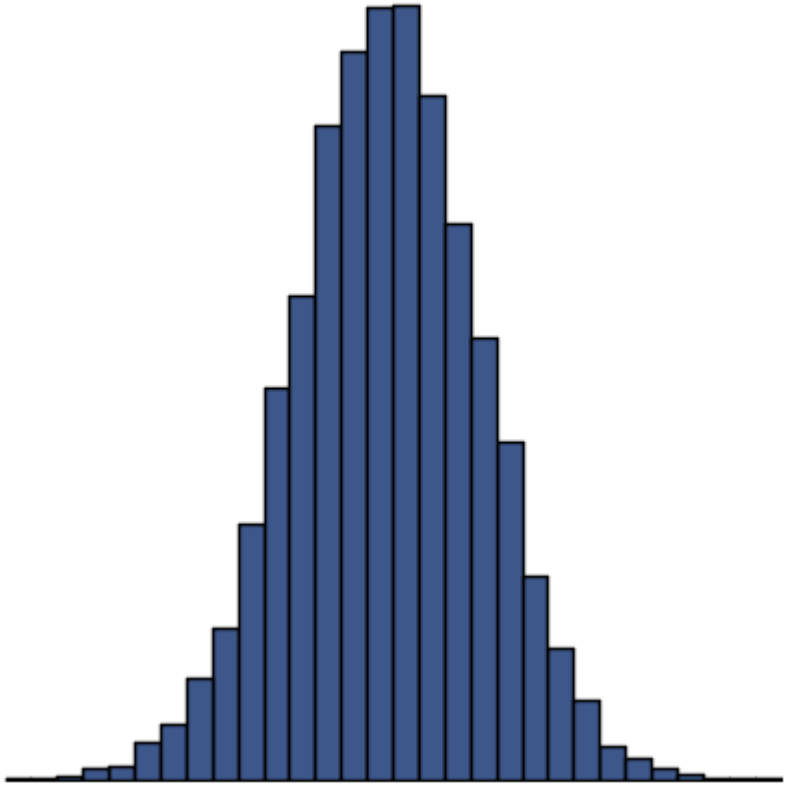
**d)** The outliers are: [88, 100, 284]

**e)** The outliers are: [88, 202, 284]

**Question 2**

Your answer is CORRECT.

What can be said about the relationship between the mean and the median for the data represented in the histogram below?



**a)** The mean and the median are approximately equal.

**b)** The mean is less than the median.

**c)** The median is less than the mean.

**Question 3**

Your answer is CORRECT.

True or False:
The amount of rainfall in your state last month is an example of discrete data.

**a)** True

**b)** False

**Question 4**

Your answer is CORRECT.

True or False:
Of the range, the interquartile range, and the variance, the interquartile range is least influenced by an outlying value in the data set.

**a)** True

**b)** False

**Question 5**

Your answer is CORRECT.

If a distribution has zero variance, which of the following is true?

**a)** The number of positive values and the number of negative values are equal.

**b)** All the values are positive.

**c)** All the values are negative.

**d)** All the values are equal to each other.

**Question 6**

Your answer is CORRECT.

Given a data set of all positive values, if the largest value of a data set is doubled, which of the following is not true?

**a)** The mean increases.

**b)** The range increases.

**c)** The interquartile range increases.

**d)** The standard deviation increases.

**Question 7**

Your answer is CORRECT.

If the test scores of a class of 36 students have a mean of 75.2 and the test scores of another class of 26 students have a mean of 67.6, then the mean of the combined group is

**a)** 72.900

**b)** 72.013

**c)** 69.513

**d)** 71.400

**Question 8**

Your answer is CORRECT.

Given the first type of plot indicated in each pair, which of the second plots could not always be generated from it?

**a)** stem and leaf, histogram

**b)** histogram, box plot

**c)** dot plot, histogram

**d)** stem and leaf, dot plot

**Question 9**

Your answer is CORRECT.

Calculate the mean, median, mode, range and standard deviation of the data: -72, -40, -40, 56, 88

**a)** mean = 17.6, median = -72, mode = -40, range = 159, standard deviation = 69.4

**b)** mean = −1.6, median = -40, mode = -40, range = 160, standard deviation = 69.4

**c)** mean = −1.6, median = 56, mode = -72, range = 161, standard deviation = 69.4

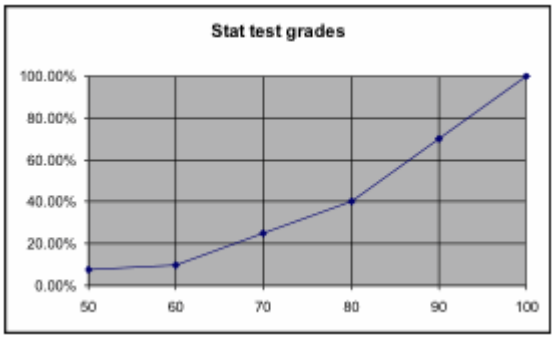
**d)** mean = 17.6, median = -40, mode = -40, range = 160, standard deviation = 69.4

**e)** None of the above

**Question 10**

Your answer is CORRECT.

The figure below shows a cumulative relative frequency plot of 40 scores on a test given in a Statistics class. Which of the following conclusions can be made from the graph?




**a)** The median test score is less than 75.

**b)** Sixty percent of the students had a test score above 80.

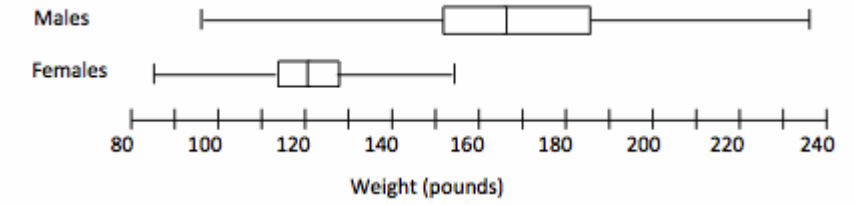
**c)** The horizontal nature of the graph for test scores of 60 and below indicates that those scores occurred most frequently.

**d)** The IQR of the data is approximately 25.

**Question 11**

Your answer is CORRECT.

The weights of male and female students in a class are summarized in the following boxplots:




Which of the following is NOT correct?

**a)** The mean weight of the female students is about 120 because of symmetry.

**b)** The male students have less variability than the female students.

**c)** About 50% of the male students have weights between 150 and 185 lbs.

**d)** The median weight of the male students is about 166 lbs.

**Question 12**

Your answer is CORRECT.

Given a data set consisting of 33 unique whole number observations, its five-number summary is:

$$[13, 24, 38, 51, 69]$$

How many observations are strictly less than 24?

**a)** 7

**b)** 9

**c)** 23

**d)** 8