1. To measure height of a person in the most comprehensive way, which level of measurement does s/he employ?

* Nominal level
* Ordinal level
* Interval level
* Ratio level

1. You conduct a study on t-shirt colour, and you question 650 people. 110 of them have brown t-shirt and 44% of them have blue t-shirt. What percentage of the people you questioned has blue or brown t-shirt?

* 61
* 64
* 82
* 44

1. In which situation is a bar graph preferred over a pie chart?

* When there are some large categories in the data.
* When the number of categories in the data is low.
* When one of the categories in the data is large.
* When the number of categories in the data is high.

1. Ten students completed an exam. Their scores were: 5, 7, 2, 1, 3, 4, 8, 8, 6, 6. What is the interquartile range (IQR)?

* 5
* 5.5
* 8
* 4

1. You find a z-score of -1.99. Which statement(s) is/are true?

* The score falls below the mean score.
* The score lies almost two standard deviations from the mean.
* 1.99 people scored higher than the person in question.
* The standard deviation of the test is negative.

6)

Chart, histogram

Description automatically generated

Look at the distributions in these histograms. Which of the following is correct?

* Graph 1 is normally distributed, graph 2 is right skewed, graph 3 is left skewed.
* Graph 1 is right skewed, graph 2 is normally distributed, graph 3 left skewed.
* Graph 1 is left skewed, graph 2 is normally distributed, graph 3 is right skewed.

7)

Chart, histogram

Description automatically generated

In the graph, which of the following statements are most accurate?

* The mode is higher than the mean. It makes most sense to use the median to measure central tendency.
* The mean is higher than the mode. It makes most sense to use the mean to measure central tendency.
* The median is higher than the mode. It makes most sense to use the mode to measure central tendency.

8) what percentage of data will fall between the z-scores of -2 and 2?

68%

95%

99%

9) Outside of which boundaries might an observation be considered an outlier?

-2 and 2

-2.5 and 2.5  
-3 and 3

10)



Import the 40 observations of the variable x in the data file [sample.csv](https://ilearn.mq.edu.au/pluginfile.php/6226763/question/questiontext/7277116/1/19870599/sample.csv) in Excel.  
**To do this, you need to click on the link above and then either copy and paste the data in an Excel sheet (take care of the header) or save the data file in a convenient location on your PC, then open Excel, click File in the Menu, select Open and navigate to the file you previously saved.**  
Use Excel to draw a histogram and a boxplot and compute the relevant numerical summaries. Based on the graphical and numerical summaries obtained, answer the following questions, marking the correct statements or reporting the numerical answer as appropriate.  
Please answer the following questions: -

1. Inspecting the sample, we can state that the distribution the sample is drawn from is probably unimodal: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. The sample mean is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. The sample standard deviation is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. The lower quartile is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. The median is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. The upper quartile is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. The inter-quartile range is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. The lower fence is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. The lower whisker extends from the lower quartile to: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. The boxplot shows one or more outliers: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_