

ELEMENTARY STATISTICS- FINAL EXAM REVIEW

2023-2024 UPDATE QUESTIONS AND CORRECT ANSWERS ALREADY A GRADED

Which of the following is NOT a voluntary response sample?

- A. A survey is taken at a mall by asking passersby if they will fill out the survey.
- B. Quiz scores from a college level statistics course are analyzed to determine student progress.
- C. A radio station asks for call-in responses to a question concerning city recycling.
- D. A local dentist asks her patients to fill out a questionnaire and mail it back to determine the quality of the care received during an office visit. - ANSWER- B. Quiz scores from a college level statistics course are analyzed to determine student progress.

What does it mean for the findings of a statistical analysis of data to be statistically significant?

- A.The likelihood of getting these results by chance is very small.
- B.The results are very important to the health and well-being of a certain population.
- C.The outcome could easily occur by chance.
- D.The results do not make enough difference to be of use. - ANSWER- A.The likelihood of getting these results by chance is very small.

What is the goal of learning statistics?

- A.To accept the source of the data blindly
- B.To use statistics for deception
- C.To learn to distinguish between statistical conclusions that are likely to be valid and those that are seriously flawed.
- D.To use voluntary response samples to imply results about the population - ANSWER- C. To learn to distinguish between statistical conclusions that are likely to be valid and those that are seriously flawed.

Which of the following is NOT a misuse of statistics?

- A.Misleading graphs
- B.Utilizing valid statistical methods and correct sampling techniques
- C.Concluding that a variable causes another variable because they have some correlation
- D.Making conclusions about a population based on a voluntary response sample - ANSWER- B.Utilizing valid statistical methods and correct sampling techniques

The managers of 28 museums of contemporary art identified the performance measure most often used to evaluate their performance. A summary and bar graph of the results are available below. Consider the bar graph. Identify two ways in which the bar graph might mislead the viewer by overemphasizing the importance of one of the performance measures. Select two ways.

- A. The chart has a misleading title because the vertical axis is displayed as a percentage instead of a proportion.
 - B. The information displayed in the chart does not match the information in the table.
 - C. There is only a measure of central tendency and no measure of variation displayed.
 - D. The vertical axis does not start at zero.
 - E. The bars are not of equal width.
 - F. The horizontal axis does not display units.
 - G. There were not enough museums studied for the results to be significant. - ANSWER-
- D. The vertical axis does not start at zero.**
E. The bars are not of equal width.

Which of the following questions is considered a "loaded" question?
Choose the correct answer below.

- A. Do you believe that cell phones cause cancer?
- B. The scientists at Georgia Tech found that cell phones cause cancer, what do you think? - ANSWER- **B. The scientists at Georgia Tech found that cell phones cause cancer, what do you think?**

A newspaper posted this question on its website: "How often do you seek medical information online?" Of 1072 Internet users who chose to respond, 38% of them responded with "frequently." What term is used to describe this type of survey in which the people surveyed consist of those who decided to respond? What is wrong with this type of sampling method?

What term is used to describe this type of survey? Select all that apply.

- A. The respondents are a self-selected sample.**
- B. The respondents are a population.**
- C. The respondents are a voluntary response sample.**
- D. The respondents are a census.**

What is wrong with this type of sampling method? Select all that apply.

- A. It is too time consuming.
 - B. It is too expensive.
 - C. Responses may not reflect the opinions of the general population.
 - D. The survey question is "loaded," or intentionally worded to elicit a desired response.
 - E. Many people may choose not to respond to the survey. - ANSWER- Part 1:
- A. The respondents are a self-selected sample.**
C. The respondents are a voluntary response sample.

Which of the following represents data?

A. Quiz scores from a college level statistics course.

B. 20% of the students in a math class make an A.

C. A radio station announces the results of a contest.

D. A local dentist creates a questionnaire to determine the quality of the care received during an office visit - ANSWER- **A. Quiz scores from a college level statistics course.**

A research company performed a study of Machiavellian traits in accountants.

Machiavellian describes negative character traits that include manipulation, cunning, duplicity, deception, and bad faith. A questionnaire was administered to a random sample of

700 accounting alumni of a large university; however, due to nonresponse and incomplete answers, only 203 questionnaires could be analyzed. Several variables were measured, including age, gender, level of education, income, job satisfaction score, and Machiavellian ("Mach") rating score. The research findings suggest that Machiavellian behavior is not required to achieve success in the accounting profession.

Part B. Identify the population of interest to the researchers. Choose the correct answer below.

A. All alumni of the large university

B. All accounting alumni of the large university

C. The 700 accounting alumni

D. All 203 accounting alumni who returned the questionnaire

Part B: Identify the sample. Choose the correct answer below.

A. The sample is the 700 accounting alumni who returned the questionnaire.

B. The sample is all alumni of the large university.

C. The sample is the 203 accounting alumni who returned the questionnaire.

D. The sample is all accounting alumni of the large university.

Part C: Use the information in the study to make an inference about the relevant population. Choose the correct answer below.

A. Machiavellian behavior is not required to achieve success in the accounting profession.

B. A high level of education is important to achieve success in the accounting profession.

C. Gender does not have an effect on success in the accounting profession.

D. Job satisfaction is important to achieve success in the accounting profession. -

ANSWER- Part A:

B) All accounting alumni of the large university

Part B:

C) The sample is the 203 accounting alumni who returned the questionnaire