

Instructions: Answer each question as thoroughly as possible. Round answers to 4 decimal places as needed. Exact answers are best when possible. Be sure to answer all parts of each question.

1. Explain the difference between descriptive statistics and inferential statistics.

descriptive statistics merely describes available data.
Inferential statistics tries to use that to infer information about the whole population.

2. Describe the procedures for creating a stratified sample. Given an example of a situation in which it would be used.

Break the data up into strata (groups) by some categorical variable. Proportion the total sample size to the various groups.
Simple random sample within each group.

3. For each of the following variables, identify whether the variable is i) categorical or numerical, ii) it's level of measurement (nominal, ordinal, interval or ratio), and if it is numerical iii) whether it is discrete or continuous (write NA if it does not apply).

- a. Credit card number (on the card)

categorical
nominal, NA

- b. Religious affiliation

categorical
nominal, NA

- c. Pain level

categorical
ordinal, NA

- d. Decibels of a sound

numerical
interval, continuous

- e. Commute time in minutes

numerical
ratio, continuous

4. Why are some studies conducted double blind?

to avoid researchers giving away subtle clues to subjects that could affect the results