

Elementary Statistics	Name: _____
Study Guide 2	Class: _____
Due Date: _____	Score: _____

No Work ⇔ No Points

Use Pencil Only ⇔ Be Neat & Organized

1. (3 points) Complete the following sentence: Statistics is the science of

1. _____

2. (2 points) Fill in the blanks: The applications of statistics are commonly divided into two areas, _____ statistics and _____ statistics.

2. _____

3. (3 points) Give three examples of qualitative variables.

3. _____

4. (3 points) Give three examples of quantitative variables.

4. _____

5. Use common sense to determine whether the given event below is impossible; possible, but very unlikely, possible and likely, or surely to happen:

(a) (2 points) Don rolled four dice that are numbered from 1 to 6 each and got a total of 40 .

(a) _____

(b) (2 points) Lisa randomly selected a red card from a shuffled ordinary deck of playing cards.

(b) _____

(c) (2 points) Luna randomly selected a red ace card from a shuffled ordinary deck of playing cards.

(c) _____

(d) (2 points) Any student whose name appears on the class roster after the drop deadline will receive a letter grade for the class.

(d) _____

6. Determine whether the given value is a statistic or a parameter:

(a) (1 point) A sample of 80 doctors had average salary of \$12,000 per month.

(a) _____

(b) (1 point) The GPA of all students at the college is 2.95.

(b) _____

(c) (1 point) All members of the USA national soccer team were asked to do a self-evaluation for their performance in the last world cup.

(c) _____

7. Determine which of the four level of measurement nominal, ordinal, interval, or ratio is most appropriate:

(a) (1 point) Survey responses of "good, better, best".

(a) _____

(b) (1 point) The zip code for college mailing address.

(b) _____

(c) (1 point) The room temperature.

(c) _____

(d) (1 point) The distance between two cities.

(d) _____

(e) (1 point) Size of regular T-Shirt.

(e) _____

8. Determine whether the given value is from a discrete or continuous data set:

(a) (1 point) The temperature of a cup of coffee at a local restaurant is 68.7° .

(a) _____

(b) (1 point) The number of all students in all mathematics classes at the college is 3456.

(b) _____

(c) (1 point) Amount of rain falls in the recent flood in Oklahoma and Texas.

(c) _____

(d) (1 point) The number of inmates at county jail.

(d) _____

(e) (1 point) The number of tails when you toss a fair coin 100 times.

(e) _____

(f) (1 point) The amount time that a student took to finish the computer assignment.

(f) _____

9. Determine whether the variable data type below as qualitative or quantitative type:

(a) (1 point) The weight of people at a basketball game.

(a) _____

(b) (1 point) The color of jersey that basketball players wear when they play.

(b) _____

(c) (1 point) The type of vehicles that was in the showroom at a car dealership.

(c) _____

(d) (1 point) Student's grade in Pass/No Pass class.

(d) _____

10. Determine the type of sampling used: random, stratified, systematic, cluster , convenience:

(a) (1 point) 25 students were selected from each of the Freshmen, Sophomore, Junior, and Senior classes with 350, 450, 520, and 125 students respectively.

(a) _____

(b) (1 point) To complete an assignment, a statistic students obtain certain data by interviewing his family members.

(b) _____

(c) (1 point) The supervisor of an assembly line selected every 25th item for quality inspection.

(c) _____

(d) (1 point) A medical researcher contacted every cancer patients from randomly selected 25 hospitals.

(d) _____

(e) (1 point) A local newspaper reached out to 1200 voters by phone that were randomly generated by a computer software.

(e) _____

11. (2 points) What is an experiment?

11. _____

12. (2 points) What is an observational study?

12. _____

13. (2 points) What is a simple random sample?

13. _____

14. (2 points) What is the least reliable method of collecting data?

14. _____