

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

Your solutions must be consistent with class notes & resources.

Be Neat, Organized, and No Work \Leftrightarrow No Points

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

2. (2 points) What are the two branches of statistics?

2. _____

3. (2 points) What are the two different data types?

3. _____

4. (3 points) Give two examples of qualitative data.

4. _____

5. (3 points) Give two examples of quantitative data.

5. _____

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) _____

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) Size of regular T-Shirt.

(d) _____

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 professors at the college.

(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 patient 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?

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

13. (2 points) What is the least reliable method of collecting data?

13. _____

14. Given: $Max = 80$ and $Min = 20$,

(a) (2 points) Compute $Max - Min$.

(a) _____

(b) (2 points) Compute $\frac{Max - Min}{4}$.

(b) _____

(c) (2 points) Compute $\left(\frac{Max - Min}{4}\right)^2$.

(c) _____

(d) (2 points) Compute $\frac{(Max - Min)^2}{12}$.

(d) _____

(e) (2 points) Compute $\frac{Max + Min}{2}$.

(e) _____

Students generally do better when they use the tutoring center.