

Instructions: You may not use any human help for the completion of this quiz. Use of your homework, tests, notes, book and non-human internet support is acceptable. Good luck! This test is due at 1:00 on Monday, June 23. You have a fifteen minute grace period. After 1:15 the percent possible will go down by 20% every 15 minutes that it is late (at 1:15 you can only get an 80%, at 1:30 you can only get a 60%, at 1:45 you can only get 40%, at 2:00 a 20%, and any time after that you will get 0% credit.)

1. Indicate the type of sampling as systematic, random, convenience, cluster or stratified.
 - a) I want to eat lunch and I need to collect information about the students of Gavilan College so I decide to collect information from the students in the cafeteria while I eat lunch

 - b) I ask every 3rd person from my roster their opinion about Triola's book

 - c) A card is drawn from a well-shuffled deck _____
 - d) The factory produced 25 lots and 5 lots are randomly chosen and information is collected from every item in the lot

 - e) The county is divided into 15 regions and 25 people are randomly chosen from each region _____

2. Give the level of measurement as ratio, interval, nominal or ordinal.
 - a) The height of the students in my class _____
 - b) The year you were born _____
 - c) Your GAV ID number _____
 - d) Your grade in my class _____

3. Is the following a statistic or a parameter?
 - a) In a 10 year sample, the average rainfall in Morgan Hill was 1.2 in. per month. _____
 - b) 5% of the part-time teachers at Gavilan have more than 10 years experience. _____

4. For the following ID as sampling or non-sampling error.

In a poll, the percentage of voters favoring our current Representative was 57%, and in a census it was shown that 62% actually favored the Representative.

Paul, who favors abortion, got a 10% more yes responses to a question concerning opinions on abortion than his friend Joe who believes that abortion is wrong under any circumstance.

5. Qualitative data can be broken into 2 types _____ and _____, while _____ data can be broken down into ratio or interval data, which in turn can be classified as either _____ or _____. (Use the words: nominal, ordinal, interval, ratio, quantitative, qualitative, discrete and continuous to fill in the blanks.)

6. For the following sample data **create a stem-and-leaf plot** and then answer the questions that follow.

21, 22, 22, 25, 32, 37, 38, 39, 39, 40, 40, 43, 44, 45, 49, 51, 53, 55, 61, 61, 62, 65, 67

- a) Find the mean. Show your work. Label appropriately.
You may use the calculator to find the sum of the x 's.
- b) Find the median. Show the work for the indicator function. Label the median appropriately.
- c) Find the mode(s) if a mode(s) exists. If there is no a mode, indicate that.
- d) Based only on the position of the mean, median and mode would you classify this data as left skewed, right skewed or approximately symmetric. Justify your answer.
- e) Find the class width if you want 10 classes.
- f) Give the first class. Be sure to give the lower class limit as well as the upper class limit. Show your work in arriving at the upper class limit.

7. For the following frequency table answer all the questions below:

Classes (Years)	Frequency
?-27	3
27-40	5
41-53	9
54-66	4
67-79	3

- a) What is wrong with the 2nd class' lower limit? Correct it.
- b) What is the class width?
- c) What is the lowest, lower class limit?
- d) What is the lowest class boundary?
- e) What is the midpoint of the last class?
- f) How many data points are there?
- g) Create a relative frequency table for the data beside the table above.
- h) Create a cumulative frequency table for the data.

- i) Create a histogram for the data. Be sure to label the axes and to label the bars appropriately.

- j) Based upon the shape of the data as viewed from the histogram (and only the histogram) would you consider this data to be left skewed, right skewed or approximately symmetric. Justify your answer.