

1. Which of the following variables are quantitative and which are qualitative? Classify the quantitative variables as discrete or continuous.

- (a) The temperature of the water _____
- (b) The tally marks on a frequency table _____
- (c) The time to finish this test _____
- (d) Political affiliation _____
- (e) Ranking in class _____

2. For each of the following, determine which of the four levels of measurement is most appropriate. (Nominal, Ordinal, Interval or Ratio)

- (a) The make of cars in the parking lot of the Mall. _____
- (b) The average temperature of the 10 cities _____
- (c) The distances driven by cars in a test of fuel consumption. _____
- (d) Rating of “Good”, “Better” and “Best” _____

3. Identify the type of sampling used in each case.

(Random, Cluster, Stratified, Systematic, or Convenience)

- (a) A pollster selects drivers who are waiting to have their cars repaired at a local Sears Auto store. _____
- (b) A pollster selects every 50th name in a telephone book. _____
- (c) A pollster selects 100 men and 100 women. _____
- (d) A pollster selects 50 people from each of 40 countries. _____
- (e) A pollster writes the names of each voter on a card, shuffles the cards, then draws 25 names. _____

4. Distinguish between a statistic and a parameter. Also, relate them to populations and sample spaces.

5. Use the given sample data to find each of the listed values.

62 52 52 52 64 69 69 76

(a) Mean _____

(b) Median _____

(c) Mode _____

(d) Midrange _____

(e) Range _____

(f) Variance _____

(g) Std. Dev. _____

(h) Q_1 _____

(i) D_2 _____

(j) P_{88} _____

(k) IQR _____

(l) $64 = P_k$ _____

6. Construct a Box & Whisker graph (a five value graph) that corresponds to the data given in problem 5.

Describe the shape of the Data: _____

- a) Uniform
- b) Normal (Bell Shaped)
- c) Skewed to the Right
- d) Skewed to the Left
- e) None of the above

7. Use the frequency table below to find the following values:

- (a) Mean _____
- (b) Median _____
- (c) Standard Deviation _____
- (d) Modal Class _____

x	f
31 - 40	3
41 - 50	2
51 - 60	4
61 - 70	5
71 - 80	12
81 - 90	8
91 - 100	4

8. Referring to the frequency table given in problem 7, answer the following questions.

- (a) What is the lower class limit for the first class? (a) _____
- (b) What is the class mark of the first class? (b) _____
- (c) What is the lower class boundary of the first class? (c) _____
- (d) What is the sample size n ? (d) _____
- (e) What is the class width? (e) _____

9. Construct a Histogram that corresponds to the frequency table given in problem 7.

10. Construct the cumulative frequency table and ogive that correspond to the frequency table given in problem 7.