Chapter 1, 2, and 3 Review

Answer the following true or false:
1. Systematic sampling divides the population into separate groups, called strata and then selects a simple random sample from each stratum. ______________
2. Interval > nominal > ordinal ______________
3. Sample surveys are examples of observational studies. ______________

For the following questions, fill in the blank:
1. ______________: the measurement scale that has numerical values that represent different magnitudes of the variable.
2. __________  ________: ȳ
3. _________: 2 standard deviations

Of the following which scale of measurement are they?
   a. Attitude toward legalization of marijuana (favor, neutral, oppose)
   b. Gender (female, male)
   c. Number of children in family (0,1,2…)
   d. Political Philosophy (very liberal, somewhat liberal, moderate, somewhat conservative, conservative)

Answer the following questions:

a) Below are the number of cats found in different U.S. state capitals. Find the mean, median, and then find the standard deviation for 95% of the sample population.
   Topkeka 415
   Helena 114
   Juneau
   Tallahassee 248
   Columbus 331
   Total 1129
b) Below are the annual number of vacation days averaged by residents in 8 different countries reported to National Geographic Traveler magazine. Find the standard deviation for 68% of the data.

42, 37, 35, 34, 28, 26, 25, 13

c) The data set below is the reported life expectancies for countries in Africa. Find 2 standard deviations.

64, 58, 60, 55, 52, 52, 64, 59, 62, 55, 57, 59, 65
d) Find the Q1, Q2, Q3, and the IQR for the following: 7, 4, 13, 21, 16, 40

e) Find Q1, Q2, Q3, and the IQR for the following: 6, 3, 8, 4, 5, 14, 13

f) Find Q1, Q2, Q3, and the IQR for the following: 1, 5, 2, 6, 9, 12