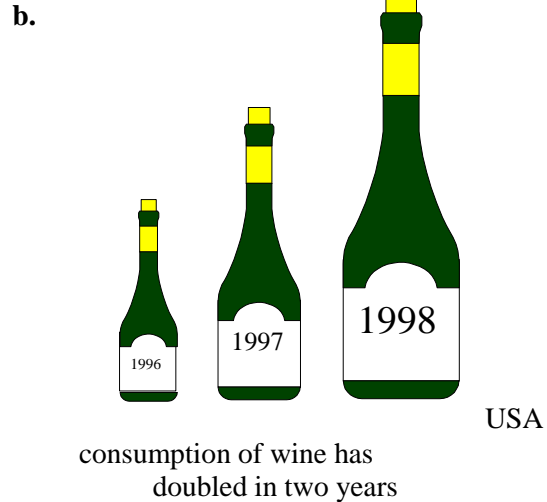
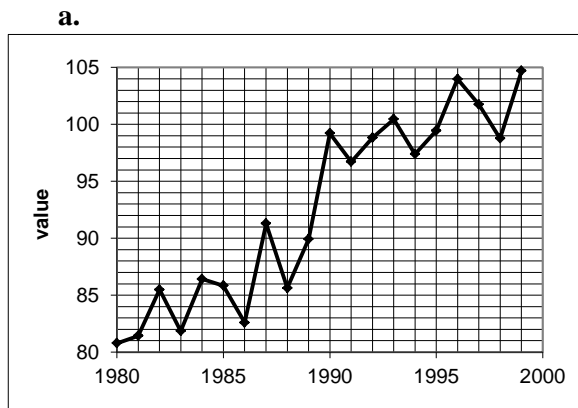


FOR 274 Assignment 4 [50 points]

Name: _____

This assignment should be completed and handed in to the assignment box in the Forest Resources office by the start of lecture on Monday 28th of September. Partial credit will only be given for incorrect answers if you show your work.

1. What is wrong with the following figures:



2. What type of data are represented by the following:

- a.** Temperature of the water in a river?
- b.** Velocity of flow in the river channel?
- c.** Type of car in a survey on commuting habits?
- d.** Satisfaction rating (very good, good, indifferent, bad, very bad) in a survey of attitudes towards rail travel since privatization?

3. What is the quadratic mean diameter of the following set of tree diameter measures?

10.2, 12.6, 16.9, 18.5, 14.2, 15.0

4. Calculate to the nearest $1/10^{\text{th}}$ foot the radius of a 5^{th} , 10^{th} , and 100^{th} acre circular plot.

5. Calculate to the nearest $1/10^{\text{th}}$ meter the radius of a 7^{th} , 12^{th} , and 30^{th} hectare circular plot.

6. Calculate to the nearest $1/10^{\text{th}}$ foot the length of the side of a 5^{th} , 10^{th} , and 100^{th} acre square plot.

7. Calculate to the nearest $1/10^{\text{th}}$ meter the length of the side of a 7^{th} , 12^{th} , and 30^{th} hectare square plot.

8. Consider the following data

Tree #	DBH (in)	Tree #	DBH (in)
1	13.3	11	24.1
2	14	12	8
3	17	13	7
4	12	14	6.4
5	9.2	15	5.9
6	7.1	16	8.7
7	6.3	17	6.8
8	14	18	12.8
9	17	19	13.2
10	22.3	20	16

- Estimate the mean DBH.
- Estimate the standard error of the mean.
- Compute the 95% confidence limit of the mean
- Is the distribution skewed? If so, is it positive or negative?

9. Assuming that each of your paces is $3\frac{1}{2}$ feet, calculate the following horizontal distances to the nearest foot:

- A flat distance between A and B of 32 paces?
- A flat distance between A and B of 27 paces?
- The horizontal distance between A and B when the distance on a slope of 30° is 11 paces?
- The horizontal distance between A and B when the distance on a slope of 60° is 39 paces?