Section D: <u>Homework</u>

1) The exam scores for the students in an introductory statistics class are as follows:

34 39 63 64 67 70 75 76 81 82 84 85 86 88 89 89 90 96 96 99 102

Construct a stem-and-leaf plot and describe the shape of the distribution.

2) Construct a stem-and-leaf plot for the following data and describe the shape of the distribution.

56	34	78	4	27	17	25	45	47	23	47	58
31	78	98	96	53	21	6	49	54	38	24	94
42	16	19	25	31	50	37	92	103	48	18	77

3) A soft-drink bottler sells “one-liter” bottles of soda. A consumer group is concerned that the bottler may be shortchanging customers. Thirty bottles soda are randomly selected. The contents, in milliliters, of the bottles chosen are shown below.

1025	977	1018	975	977	990	986	1004	1031	964
986	963	1010	988	1028	989	1001	984	974	1017
1006	1030	991	999	997	996	1014	993	995	987

Construct a stem-and-leaf plot and describe the shape of the distribution.
Is the bottler shortchanging customers?

4) A sample of 35 liberal-arts graduates yielded the following starting annual salaries. Data are in thousands of dollars, rounded to the nearest hundred dollars.

49.0	45.8	50.3	49.6	50.0	47.7	51.8	47.3	46.7	47.0	48.1	50.1	43.6	48.0
47.7	49.8	46.4	46.1	48.5	48.9	48.2	48.1	46.2	47.3	51.7	49.0	48.2	49.9
48.1	49.8	49.5	50.4	45.3	45.3	46.5							

Construct a stem-and-leaf plot and describe the shape of the distribution.

5) The following back-to-back stem-and-leaf plot represent the results of two random samples obtained by Millie Gramm. The first random sample consisted of weights of carry-on luggage used by business travelers at an airport. The second random sample consisted of weights of carry-on luggage used by non-business travelers at the same airport.

Business		Non-Business
69	**0**	**89**
799	**1**	**2358**
44468	**2**	**11347889**
23699	**3**	**022246**
178	**4**	
24	**5**	

a) What is the mode for the business travelers?_____

b) What is the mode for the non-business travelers?_____

c) Which group is more symmetrical? _____