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Homework 1  
CIS 321 — Fall 1999  
*Tuesday, September 14*

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**Problem 1.** Plot an appropriate stem-and-leaf display for the melting points of biphenyl given below and comment on the results. Discuss any interesting features. If possible, propose reasons for these features.

Also construct a boxplot and comment on your results. Discuss any interesting features. What insights does the boxplot offer above the stem-and-leaf display?

The National Bureau of Standards tests 14 samples of biphenyl measured on a differential calorimeter calibrated with two standards in order to establish this substance's melting point in °C. Here are the data:

343.0 342.4 343.4 343.1 343.3 343.7 343.5  
343.1 343.3 343.4 343.8 343.3 343.3 343.3

**Problem 2.** These are the outside diameters (in inches) of the barrels of a popular felt-tip marker:

0.379 0.376 0.379 0.379 0.378  
0.378 0.377 0.378 0.377 0.379  
0.378 0.377 0.377 0.379 0.378  
0.377 0.377 0.378 0.379 0.378  
0.379 0.380 0.379 0.378 0.379  
0.380 0.378 0.379 0.379 0.379  
0.379 0.380 0.380 0.381 0.379

Plot an appropriate stem-and-leaf display and comment on your results. Discuss any interesting features. If possible, propose reasons for these features.