MTH 316 NONPARAMETRIC STATISTICS
Homework #3 (Due Thursday, September 19)

1. Locate the sampling distribution application by using the "Java applet" link from our MTH 316 website. Please read the Instructions page. Then proceed by clicking on the "Begin" box. (A web browser other than Internet Explorer is recommended.)

a. (i) Describe in words (or draw) the distribution of a particular parent population.

(ii) State the sample size your are using.

(iii) Describe in words (or draw) the sampling distribution of the sample mean. Comment on the shape of the sampling distribution of the sample mean.

b. Repeat part **a.** for a different parent population.

c. Does the Central Limit Theorem also apply to the sample variance? Please explain.

The following exercises are from Chapter 3, pages 79–82.

2. Problem 3.3

3. Problem 3.4

4. Problem 3.8

5. Problem 3.11

6. Problem 3.13. In addition, conduct the appropriate t-test and compare your results to those obtained using the Wilcoxon signed-rank test.