

**MTH 316 NONPARAMETRIC STATISTICS**  
**Homework #2 (Due Thursday, September 12)**

The following exercises are from Chapter 2, pages 42–44.

1. Problem 2.2
2. Problem 2.3
3. Problem 2.5
4. Problem 2.10
5. Problem 2.11
  
6. Please refer to the example given in class concerning medications  $A$  and  $B$  for hypertension.
  - a. What is the distribution of the sum of the ranks ( $S$ ) for medication  $B$ ?
  - b. Using part **a.**, conduct the two-tailed hypothesis test that the change in blood pressure distributions are the same for medications  $A$  and  $B$ . Compare your results to those obtained in class.
  - c. Use `wilcox.test(x,...)` to conduct the two-tailed hypothesis test in R. In R, type `help("wilcox.test")` for more details. Comment on your findings.