MTH 316 NONPARAMETRIC STATISTICS Homework #9 (Due Thursday, November 14)

The following exercises are from Chapter 10, pages 316–319.

- **1.** Problem 10.4
- **2.** Problem 10.9
- **3.** Problem 10.10
- **4.** Problem 10.14
- **5.** A set of baseball data for the year 2010 can be found in the R-package npsm. The name of the baseball data is bb2010. After installing the package npsm, consider the following lines of R-code:
- > library(npsm)
- > data(bb2010)
- > bb2010
- > help(bb2010)
- a. Using the baseball data, obtain the scatterplot between the variables home run productions and RBIs. Then compute the Pearson's, Spearman's, and Kendall's analyses for these variables. Comment on the plot and analyses.
- **b.** Conduct hypothesis tests, where the null hypothesis is that there is no association between the variables home run productions and RBIs, using Pearson's, Spearman's, and Kendall's procedures.
- **c.** Which procedure do you think is the most appropriate for this problem? Please explain.