

Project 1: Get Up and Running with Statistical Software

15 Points, Due February 4th

The purpose of this project is to become familiar with the R statistical software that will be used during the course. The data for this project are from plastic manufacturing, and consist of reactor type (A or B), temperature, and conversion readings. The steps are:

1. Delete the observation corresponding to the last number in your student ID from the dataset. If your ID ends in zero, delete the 10th observation.
2. Transport the data to R, and create:
 - a. Descriptive statistics (mean, median and standard deviation) for each measurement variable (temp, conv), overall and by reactor.
 - b. The correlation coefficient between temperature and conversion, overall and by reactor.
 - c. Comparative histograms of temperature and conversion, by reactor.
 - d. A scatter plot of $y = \text{conversion}$ vs. $x = \text{temperature}$, using all the data and symbols denoting reactor.
 - e. A normal probability plot of the deviations about the individual reactor means.
3. Compare the outputs and report any interesting findings. This report should be very brief, just a few sentences.

Your final report should be produced in Word, including all of the graphs and tables from R.