## **Problem Set for Quiz 2.**

Refer to the spreadsheet PS1data to answer the questions.

- 1. What are the pairwise covariances amongst the monthly returns of: ITT Corporation (ITT), Northrup Grummon (NOC), Weyerhauser (WY), and the value-weighted CRSP Index?
- 2. What are the pairwise correlations amongst the monthly returns of: ITT Corporation (ITT), Northrup Grummon (NOC), Weyerhauser (WY), and the value-weighted CRSP Index?
- 3. What are the monthly expected returns and standard deviations of the following portfolios:
  - a. 35% in WY, 65% in ITT?
  - b. 25% in ITT and 75% in NOC?
  - c. 45% in NOC and 55% in WY?
- 4. For each of the three portfolios in #2 construct the 68, 95, and 99%ile ranges for returns over the next 12 months.
- 5. Suppose that you buy 500 shares NOC and 1,000 shares of WY on June 29, 2018. Construct the 68, 95, and 99 percentile ranges for the value of this portfolio on June 30, 2019.

Remember while we use spreadsheets for ease and exposition, you will have to perform all of these computations with a calculator and a blank sheet of paper on the quiz.