IOE 510
Homework 1
Due Wednesday, 09/15/10

How to submit homework: Homework assignments will be posted on the web a week before the due date, and due before class or in the GSIs mailbox no later than 12:30 on the day specified. We will no accept late homeworks (however, we will drop the lowest homework score from the grade calculation). Solutions to the homework assignments will be posted on CTools.

Occasionally, homework assignments will contain some computational elements (not this one, but likely next one). In those instances, in addition to your “paper” solutions, you must submit all the files you wrote and used to answer the questions electronically through CTools. We will check and, in many instances, run your code in the process of grading your homeworks. Detailed instructions will be included with the first computational assignment.

All exercises are from Chapter 1 of Bertsimas and Tsitsiklis‘es book

- The following are exercises in LP modeling. Make sure you clearly define what the variables in your model represent and what their units are.
  - Exercise 1.7
  - Exercise 1.9
  - Exercise 1.15

- The following two exercises cover the linear algebra prerequisite for this course. Read Section 1.5 in the textbook to recall definitions, notation, etc. (If you have a favorite linear algebra reference, feel free to use it in addition to the textbook to review the necessary concepts.)
  - Exercise 1.18 (Recall: to show that “A” happens if and only if “B” happens, you need to prove two separate statements: (i) If A happens, then B must also happen, and (ii) If B happens, then A must also happen.)
  - Exercise 1.19