

Week 0: Reading and Exercises

Reading

Our goal in these first few days is to learn what a linear programming problem is and get exposure to the variety of problems that can be modeled with this powerful tool. Please read Chapter 1 over the weekend and see if you can get started on Chapter 2. Be sure to also read the end-of-chapter notes on pages 10-11.

Please also browse our “ASW” handout on sample word problems. Some of these problems will appear again in the course.

Practice Exercises

Get yourself started on applying the Simplex Method. Exercise 2.1 (p24) is nice, but please also set up the initial dictionary and perform two pivots on the following example:

- $\max 2x_1 + x_2$ subject to $x_1 \leq 10$ and $x_1 + x_2 \leq 40$, $x_1, x_2 \geq 0$.

For the more theoretically minded student, Exercise 1.3 on page 8 is very interesting.