Homework 0

Due Tuesday, September 30

In this class we will be using OR-Tools for Python, developed by Google, to solve linear programs. The purpose of this "assignment" is to make sure that you are ready to do this for for the next assignment.

You have two options: You may either run Python in your browser through Colab (easier if you have little coding experience), or you can install OR-Tools on your machine and run there. If you need help setting up either, please don't hesitate to ask questions on Ed Discussion.

- 1. Go to https://developers.google.com/optimization/examples. Find the "Linear Optimization" example and click on the Tutorial link. Read the tutorial.
- 2. (a) If using Colab, go back to the previous page and click the Colab link for the Linear Optimization example. Carefully read the instructions there.
 - (b) If using your own machine, follow the instructions at https://developers.google.com/optimization/install to install OR-Tools for Python on your machine. (If you are choosing this option, I assume you already have Python installed or know how to install it.) It is good practice to do so in a virtual environment, but it is not necessary. Then, copy the complete Linear Optimization example code to your editor of choice.
- 3. Run the code and make sure it runs successfully and gives the correct answer.
- 4. Read the Stigler Diet example https://developers.google.com/optimization/lp/stigler_diet. Copy the complete code into a new Colab notebook or a new file. If using Colab, you will first need to install OR-Tools in the new notebook, using the instructions you read earlier.
- 5. Run the Stigler Diet code and make sure it runs successfully and gives an answer.
- 6. Take a screenshot or two of the Stigler diet code you just ran and the successful output. Make sure to hide any sensitive information. Submit the screenshots to Gradescope.