



Integer and Binary Linear Programs

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In this assignment, we will get some practice with linear optimization using Excel and Solver. However, these problems are solved using Integer, Binary, or Mixed constraints. You may use either Solver built in with Excel, OpenSolver, or Gurobi as your optimization engine.

1 Setup and Deliverables

You should complete this assignment using Excel and a linear optimizer. (If you use a Mac, you must make sure that your file opens fine on a Windows machine *before* submitting.) Your deliverable will be `lastname-m4.xlsx`. **Each problem should appear on its own worksheet tab**, labeled *5.44*, *6.43*, *6.64*, and *6.70*.

Exercises from *Practical Management Science*

1. Chapter 5, Exercise 44 on page 268
2. Chapter 6, Exercise 43 on page 326
3. Chapter 6, Exercise 64 on page 329
4. Chapter 6, Exercise 70 on page 329

Use Excel's "insert text box" or "cell comment" functionality to draw a text box and answer the questions directly on the worksheet tab with your model. Be sure to label the questions you are answering. For instance: "**2b.** If we round the values of the decision variables to the nearest integer..."