# Homework 1.

For each problem, write the (algebraic) linear programming formulation first. Give clear definitions of the decision variables as *numbers*. For example, write "R = the number of regular bags produced", not "R = regular".

Second, for each problem listed below, create an Excel spreadsheet model of the problem and find an optimal solution with Solver. Hand in the *standard printouts*. (See the course webpage for details.)

Don't forget to *interpret the* numerical *results*. For example, don't just write "R=10" (underlined twice), but "the optimal production plan is to make 10 regular bags".

1. (10 points) Solve problem 2 on page 20 of the textbook. (Furnco manufactures...) Start with writing the linear programming model first. Then give both the Excel/Solver and the graphical solution. (A clear handmade diagram, similar to the one we made in class suffices.)
2. (15 points) Solve problem 8 on page 22 of the textbook. (Peg and Al Fundy…) After giving the linear programming formulation solve parts (a) and (b).

Due on Wednesday, September 19, in class.