

**IEOR E4004: Introduction to Operations Research:  
Deterministic Models**  
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**HW 1**

Problems not written out explicitly are from the text: *Applied Mathematical Programming*, by Bradley, Hax and Magnanti.

1. Problem 1.1
2. Problem 1.4 (parts a and b only)
3. Problem 2.12
4. Problem 2.4 Write down the  $A$  matrix, and  $b$  and  $c$  vectors for the standard form representation of the problem (this was done in recitation). Identify all the "bases" of the constraint matrix, the corresponding basic feasible solution. Observe that each basic feasible solution corresponds to a "corner" point of the feasible region of the given LP.