Assignment 4
Due Monday, Oct. 16

6.1.3, 6.1.5, 6.2.2, 6.3.1, 6.3.2

E.1. Consider the problem

maximize $\quad z = -x_1 + x_2 + 2x_3$

subject to
$$2x_1 - x_2 + x_3 \leq 4$$
$$x_1 + x_2 + x_3 \leq 6$$
$$x_2 + 2x_3 \leq 8$$
$$x_1, x_2, x_3 \geq 0$$

Given that the optimal basis is x_3, s_1, s_2 and

$$B^{-1} = \begin{pmatrix} 0 & 0 & 1/2 \\ 1 & 0 & -1/2 \\ 0 & 1 & -1/2 \end{pmatrix}$$

construct the optimal tableau. Use the formulas from Section 6.2, **not** pivoting.

E.2. My solution of the Oil Refinery Problem from Assignment 1 used 20000 barrels of Crude 1, all that was available. If some more Crude 1 became available, what price should the refinery be willing to pay for it? Use only the Lindo results in the online solution (don't solve the problem yourself).