1. In equilibrium quantity is 150 million tons and the price 30. Consumer Surplus is \((60-30))150/2\) (you could multiply by 2,000 lbs/ton time 1,000,000 tons).

2. The elasticity of demand at point e is \((300-15)/150 = 1\) using the Problem Set shortcut or, since the slope of the demand curve is \(-1/5\), \(dq/dp(p/q) = 5(30/150) = 1\).

3. The price in Econoland will be driven down to the world price plus transport cost, or 25c per pound: \(q_d = 150, q_s = 75\) and imports are 75 (if you are picky you can multiply by 2000x 10⁶). Consumer surplus will be \(175(60-25)/2\)

4. Imported sugar would have to sell for 20+5+5 cents per pound, which means that it is priced out of the market. The \(S*(p_c)\) curve is shifted downward because the 5 cent subsidy makes \(p_c = p_s - 5\). The graph suggests \(p_c = 27, p_s = 32, q_d = q_s = 170\), so the subsidy costs about 5 cents x 170 (2000x1,000,000)

Part II: All statements were true except for 3 and 6!

3. No, as was clear from the example \(U_j = \ln x_j U_d = 2 \ln x_d\) in “Maximizing Satisfaction”

5. The Giffen is a counter example. See figure 11, page 15a of “Maximizing Satisfaction”.

Your grade is the circled number at the bottom of the page. The average grade was 79, the max was 98 and the lowest 66.