## ECON 321, Assignment 2: BP, Chapter 2: 2.1 CS

1. Read Section 2.1.1.

2. Skim Section 2.1.2.

2. Read Section 2.1.3. Note footnote g is very important – it defines a commodity  $q_0$  that has a price of 1. This is also called the *numeraire*. This allows more simple utility maxmimization problems because it gets rid of income effects.

3. Read Section 2.1.4. On page 25, let a = 10, b = 2, and d = 1. Substitute the budget constraint given on page 23 in place of  $q_0$ , and write the utility maximization problem. Then take the 2 first order conditions for  $q_1$ ,  $q_2$ , and simplify. Note how you get the inverse demands easily, but the actual demand functions take more solving.

4. Suppose that initially  $p_1 = 3$  and  $p_2 = 3$ . What is the CS found by using the formula in equation (2.2)? How does CS change if  $p_1$  falls to 2? (Note you need to find what are  $q_1$  and  $q_2$  at these prices.