Economics 58
Fall 2009

Problem Set # 3

Due 9/30/09

1. This is the week to learn something about the CES function. For this problem, do problem 4.11 in the text – parts a-c only.

2. Do Problem 4.13 – but, unless you are a glutton for punishment, do not attempt the derivations in parts a and e. Instead take these functional forms as given. I will pass out proof of their derivation. As a problem you are to do parts b-d and f-h.

3. A nice intuitive problem – Problem 5.2.

4. For both this week and the next we will be using "sources of Bias and Solutions to Bias in the Consumer Price Index" by J. Hausman as a problem source. You should skim over this paper and then answer the following two questions:

> a. On page 33 Hausman refers to the usual "substitution bias" in the CPI as a "second order bias" to differentiate it from the "first order bias" introduced by new goods. Explain the mathematical point that Hausman is making here (you will need to look at the Appendix to clarify this).

> b. Hausman's Figure 4 is intended to make the same point as in part a, but he does not do a very good job of explaining things. Can you give a clearer explanation of what Figure 4 is intended to show? (Note – to provide a good answer here you should look over the discussion of Consumer Surplus in Chapter 5 – I will be covering this material next week)