Honors Exam in Economics
Oberlin College, April 2009

Questions 1 through 5 (out of 10)

1. Frieda consumes only two goods: peanuts and root beer. When the price of peanuts rises, Frieda's root beer consumption falls. From this information, can you determine whether root beer is a normal or an inferior good for Frieda? Carefully justify your answer in terms of income and substitution effects, and illustrate your reasoning with indifference curves.
2. You currently buy bananas at $6 apiece. $T is the amount you'd be willing to pay in exchange for having the price of bananas lowered to $2 apiece.
   a) In an indifference curve diagram (with bananas on one axis and "all other goods", measured in dollars, on the other), illustrate the quantity T.
   b) In a compensated demand curve diagram, illustrate the quantity T.
   c) Prove mathematically that the two quantities you've illustrated are equal. (Use the relationship between the equation defining your indifference curve and the equation defining your demand curve.)
   d) Under what circumstances is T greater than the change in your consumer surplus? Under what circumstances is it less?

   Note: Consumer surplus is defined to be the area under the ordinary (uncompensated) demand curve.
3. Snidely Whiplash owns all the grocery stores and all the houses in the Yukon Territory. He charges a competitive price for groceries, and rents the houses at the highest price residents (who are all identical) are willing to pay. (If he charged any more, they would all leave town.) *True or False:* If Snidely started charging a monopoly price for groceries, he'd have to lower the price of housing by so much that he'd be no better off than before.
4. Discuss the welfare consequences of giving your father a Barnes and Noble gift card, under various assumptions about how he uses (or doesn't use) the card.
5. Rank these taxes in order of how much you'd dislike paying them: (i) an annual tax on consumption, (ii) an annual tax on labor income, (iii) an annual tax on all income (including both labor income and interest income). Hold fixed the present value of your lifetime tax payments.

   For simplicity, assume you can borrow and lend any amount at a fixed interest rate and you can work any number of hours at a fixed (pre-tax) wage rate. You can also assume that you live for exactly two years.