Econ 301  
Summer 2003  
Asinski  

Problem Set 2  
Due Monday June 9th in class.

Write your Name and last four digits of the middle nine of your University ID on your answer.

1. (three points) Consider the market with the following Demand $Q^D = 200 - 5P$ and Supply $Q^S = 0.2P$. Show the effect of a $10 dollar tax (imposed on the suppliers) on the equilibrium. In particular, you need to determine initial equilibrium point, then apply the tax and calculate the resulting prices and quantity exchanged, as well as the incidence of this tax on consumers. Draw a graph and explain using elasticities.

2. (two points) Problem 14 (page 72). Assume that the income $Y$ is initially $1000.

3. (two points) Problem 18 (page 72). Hint: the supply function given in this problem has constant elasticity equal to $\eta$. The question essentially asks whether consumers’ share of the $1 tax ($\Delta P_D / \Delta \text{tax}$) would be different at different points of intersection of supply and demand (which can be achieved by varying constants $B$, $a$, $b$).

4. (three points) Consider the following utility function $U(B,Z) = B*Z$. Do the preferences represented by this Utility function exhibit Diminishing Marginal Rate of Substitution property? Hint: MRS is the slope of the Indifference Curve. You will have to find an equation for any Indifference Curve, say, with associated level of utility equal to $U=10.$ (we did it in class). Then you will have to pick any two different points on the IC that you obtained and calculate the slopes and compare them.