Econ 3303   Fall 1998
Intermediate Microeconomics   R. Claycombe

Second Exam

Write all answers in your blue book and show all work there. Return your exam in your blue book.

22 pts.
1) Joe consumes only goods A and B and B is an inferior good for Joe.
a) Draw a well-labeled diagram that shows Joe's response to an increase in the price of A and identify the substitution and income effects that constitute that response.
b) Sketch the compensated and uncompensated demand curves that can be derived from your work in part a.

22 pts.
2) Suppose that Income $= 1000 = 20X + 30Y$ and $U = 10000 - (X - 50)^2 - (Y - 25)^2$
a) Find the utility maximizing combination of X and Y.
b) If Income becomes 10,000, what is the utility maximizing combination of X and Y now?

12 pts.
3) Suppose that Mark McQuire hit 70 home runs this year (year 0), shattering a record that had stood for several decades. Next year (year 1), he is still under contract at his previous salary. The year after that (year 2), he becomes a free agent and gets a substantial pay increase from his team. Will ticket prices for his team increase? If so, when? Explain.

22 pts.
4) Draw well-labeled diagrams that show the effect of a sales tax in a competitive increasing cost industry. Your diagrams should show changes in both short run and long run price and cost of the typical firm.

22 pts.
5) There are at least 10 inconsistencies to be found within this set of diagrams. For example, the TP curve suggests that the MP peaks at L_0 , but the MP curve shows its peak at L_1 . Find 7 more such inconsistencies and explain them briefly, as above. Assume that $P_L = 10$.

Top-left panel (Q vs L): Q axis with values 250, 200, 100. Curve labeled TP. Vertical reference lines at L values.

Top-right panel (MC/AC vs Q): MC axis, AC axis with values 5, 3. Curves labeled ATC, MC.

Bottom-left panel (AP/MP vs L): AP axis, MP axis with values 6, 5, 3, 2. Curves labeled AP, MP. Horizontal axis labels: L₀, L₁, L₂, L.

Bottom-right panel (TC vs Q): TC axis. Curve labeled TC. Horizontal axis values: 100, 200, 250, Q.