Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 10 points. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type this assignment will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

- 1) (20 points) Draw the D/MR/ATC/MC diagram for a perfect price discriminating firm. Find the equilibrium quantity produced, consumer surplus, producer surplus, and dead weight loss. Explain how you found them. Why didn't I ask for the equilibrium price?
- 2) (30 points) Draw the D/MR/ATC/MC diagram for a third degree price discriminating firm with two groups of consumers, with an upward sloping MC curve. Explain how you get the equilibrium prices and quantities.
- 3) (15 points) Some restaurants give discounted prices to senior citizens or children. Why charge them less? Why don't grocery stores do the same?
- 4) (35 points) Draw the MC/D diagram for a firm with a two-part tariff, constant marginal costs, and two customers with different tastes. Draw the price and entry fee. Explain how the quantities and entry free are determined. Also draw the diagram which has the profits from sales, profits from entry fees, and total profits. Explain why the curves take their shapes. Is the total profits' peak to the left, right, or above the peak of the profit from sales? Explain your logic.