

Name _____

1. (12 points) Suppose a monopolist can separate buyers into two identifiable groups and practice price discrimination. The demand function for group one is $Q_1 = 200 - 60P_1$ and for group two is $Q_2 = 100 - 40P_2$ where Q_1 is sales to group one and Q_2 is sales to group two. Suppose total costs are given by $C(Q) = 0.005Q^2 + Q + 1$ where $Q = Q_1 + Q_2$. Determine the profit-maximizing output and price for each market. Then show that price is higher in the market where demand is more inelastic.
2. (10 points) Suppose a per-unit subsidy is granted to sellers in a competitive market. Draw one graph to show price, quantity, producer surplus, and consumer surplus before the subsidy. Draw another graph to show the price paid by buyers, the price ultimately received by sellers, quantity, the change in producer surplus, the change in consumer surplus, the cost to the government, and the deadweight loss after the subsidy. Then write two paragraphs to discuss the effects of the subsidy. In the first paragraph explain how the subsidy affects the price received by sellers. In the second paragraph explain why the resulting outcome is inefficient.
3. (7 points) Suppose the world price for a good is less than that necessary to equate domestic supply and demand and then an import quota is imposed. Use words and graphs to explain the economic effects of imposing the import quota.
4. (5 points) What can you say about marginal revenue if demand is elastic? Explain your answer.
5. (6 points) Use words and graphs to explain how a monopolist chooses price and quantity to maximize profits. How would price and quantity be different if the monopolist maximized total revenue instead of profits? Explain.
6. (10 points) Suppose a price ceiling is imposed on a monopoly at a point where price equals marginal cost (i.e., where the demand curve crosses the marginal cost curve). Use words and graphs to explain the economic effects of the price ceiling. Does your answer depend on whether or not the monopoly is a “natural monopoly”? Explain.