

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 it 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) (25 points) Draw the D/ATC/MC diagram for a monopoly which is making positive profits. Find the price charged and quantity produced. Explain how you found them. Lightly shade in the area representing profits and the area of dead weight loss. Explain how you found them.
- 2) (15 points) Do monopolies normally produce in the elastic or inelastic section of their demand curve? Explain the economic reason why this is true. (The mathematical proof can help but is not necessary.)
- 3) (10 points each) For each of these, explain how that can lead to a monopoly in the industry.
 - A) patents
 - B) natural monopoly
- 4) (20 points) Do price discriminating monopolists produce the optimal amount of the product? I.e., do they have a dead weight loss? Explain your logic. Draw the D/ATC/MC diagram for a price discriminating monopolist and use the diagram to prove your point.
- 5) (10 points each) For a price discriminating monopoly, they need to have the following. Explain why they need these.
 - A) It must be easy and inexpensive to find the elasticity of demand for each consumer.
 - B) They must be able to prevent resale of the product.