Duke
UNIVERSITY

1 Short Answer Questions

1. The price elasticity of demand for gasoline is -2%. If the government wants to reduce gasoline consumption by 20% how much should it increase the price of gasoline?

2. The cross-price elasticity of good x as a consequence of an increase in the price of good y is -0.5. Are goods x and y substitutes or complements?

3. Suppose that 2 identical firms produce the same good at marginal cost c and they compete a la Bertrand. Draw the best response of Firm 1.

4. When do we say that a firm has market power? Can you name two sources of market power?

5. Suppose that the elasticity of demand for cars in Germany is -2 and -3 in the U.K., while the marginal cost of these cars is \$20,000. How will prices differ in Germany and the U.K..

2 Monopoly, Cournot and Stackelberg KEY -

The market demand function for gelato in Summersville is

$$Q^d = 70 - \frac{P}{2}$$

Its cost function for producing gelato is $TC = 5 + 20Q$.

1. What is fixed cost, the variable costs, average costs and marginal costs of producing gelato? Does the cost function of gelato have economies or diseconomies of scale?

2. Suppose that there is only ONE producer of bathing suits. Find the profit-maximizing quantity and price for bathing suits.

3. Suppose that firm can perfectly price discriminate (first degree price discrimination). How much will is produce? How much will its profits be?

4. What will be the equilibrium prices and quantities, if there are TWO firms that choose quantities simultaneously? **(Cournot Competition).**

5. Now assume that the first firm gets to choose quantity before the entrant. What are the quantities that these firms will produce and the price in the market **(Stackelberg Competition).** Why are these quantities different?