Unit 4 Practice

FRQ Micro 2012

1. Steverail, the only provider of train service operating between two cities, is currently incurring economic losses.
   (a) Using a correctly labeled graph, show each of the following.
      (i) Steverail's loss-minimizing price and quantity, labeled P_m and Q_m, respectively
      (ii) The area of economic losses, shaded completely
      (iii) The allocatively efficient quantity, labeled Q_e
   (b) If Steverail raised the price above P_m identified in part (a)(i), would total revenue increase, decrease, or not change? Explain.
   (c) Assume a per-unit subsidy is provided to Steverail.
      (i) Will Steverail's quantity increase, decrease, or not change? Explain.
      (ii) Will consumer surplus increase, decrease, or not change?
   (d) Assume instead that a lump-sum subsidy is provided to Steverail. For the short run, answer the following.
      (i) Will the deadweight loss increase, decrease, or not change? Explain.
      (ii) Will Steverail's economic losses increase, decrease, or not change?

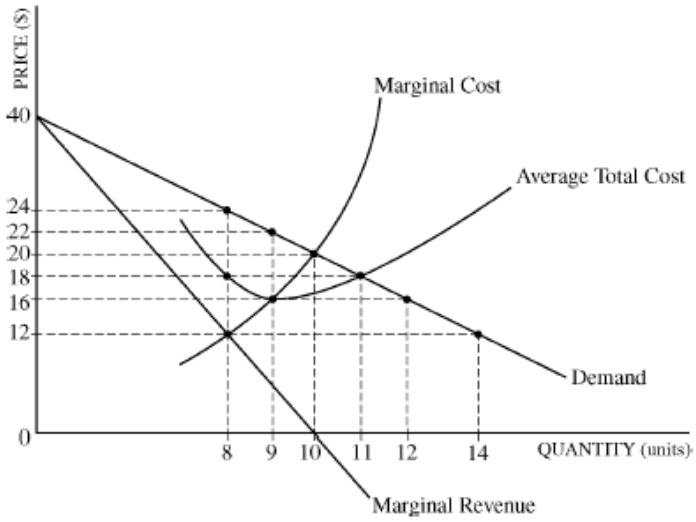
FRQ Micro 2009

1. CableNow is the only supplier of cable TV services offering a wide range of TV channels. CableNow is an unregulated firm and is currently earning an economic profit. Assume that CableNow does not practice price discrimination.
   (a) Draw a correctly labeled graph for CableNow and show each of the following. Make sure your graph is large enough to be legible.
      (i) The profit-maximizing quantity of cable services, labeled as Q*
      (ii) The profit-maximizing price, labeled as P*
      (iii) The area of economic profit, completely shaded
      (iv) The socially optimal level of cable services, assuming no externalities, labeled as Q_S
   (b) Assume that the government grants CableNow a lump-sum subsidy of $1 million. Will this policy change CableNow's profit-maximizing quantity of cable services? Explain.
   (c) Instead of granting a subsidy, assume now that the government chooses to require CableNow to produce the quantity at which CableNow earns zero economic profit. On the graph you drew in part (a), label this quantity Q_R.
   (d) At Q_R, is the firm's accounting profit positive, negative, or zero? Explain.
   (e) Assume that a new study reveals there are external benefits associated with watching TV. Will the socially optimal quantity of cable services now be larger than, smaller than, or equal to the Q_S you identified in part (a)(iv) ?

From the point of view of economic efficiency, a monopolist produces
(A) too much of a good and charges too low a price
(B) too much of a good and charges too high a price
(C) too little of a good and charges too low a price
(D) too little of a good and charges too high a price
(E) the socially optimal amount of a good

FRQ Micro 2011

1. A monopolist's demand, marginal revenue, and cost curves are shown in the diagram below.



(a) Assume that the monopolist wants to maximize profit. Using the labeling on the graph, indicate the monopolist's price.

(b) When the output is 8 units, what is the profit per unit?

(c) Assume that the monopolist is maximizing profit. Is allocative efficiency achieved? Explain.

(d) Between the prices of $16 and $18, is the monopolist in the elastic, inelastic, or unit elastic portion of its demand curve? Explain.

(e) Assume that regulators set an output of 11 units.

(i) Is the monopolist earning positive economic profit? Explain.

(ii) Is the monopolist earning positive accounting profit?

(f) Assume instead that regulators impose a price ceiling of $22.

(i) What is the marginal revenue for the eighth unit?

(ii) What quantity will be produced?

(g) Assume instead that the monopolist practices perfect price discrimination (also called first-degree price discrimination).

(i) What quantity will be produced?

(ii) What will be the value of the consumer surplus?

FRQ Micro 2009

3. Two competing retail firms, Red Shop and Blue Mart, are studying potential locations for new stores in the suburbs of a major city. Each firm must choose between a location north of the city and a location south of the city. The payoff matrix is shown below, with the first entry in each cell indicating Red Shop's daily profit and the second entry indicating Blue Mart's daily profit. Both firms know all of the information in the payoff matrix.

		Blue Mart: North	Blue Mart: South
Red Shop	North	$900, $1,800	$3,000, $3,500
Red Shop	South	$5,000, $4,000	$1,500, $1,000

(a) If Red Shop chooses a location south of the city, which location is better for Blue Mart? Explain.

(b) Is choosing a location to the south of the city a dominant strategy for Red Shop? Explain.

(c) If the two firms cooperate in choosing locations, where will each firm locate?

(d) Assume that the south suburb has enacted an incentive package to attract new business. Any firm that locates south of the city will receive a subsidy of $2,000 per day. Redraw the payoff matrix to include the subsidy.

FRQ Micro 2009B

1. Mary & Company, operating in a monopolistically competitive industry, produces a cleaning product called BriteKlean. The company currently produces the profit-maximizing quantity of BriteKlean but is operating at a loss.

   (a) Draw a correctly labeled graph for Mary & Company and show each of the following.

      (i) The profit-maximizing output and price, labeled as Q_M and P_M, respectively

      (ii) The area of loss, shaded completely

   (b) What must be true in the short run for the company to continue to produce at a loss?

   (c) Assume now that the demand for cleaning products increases and that the company is now earning short-run economic profits. Relative to this short-run situation, how does each of the following change in the long run?

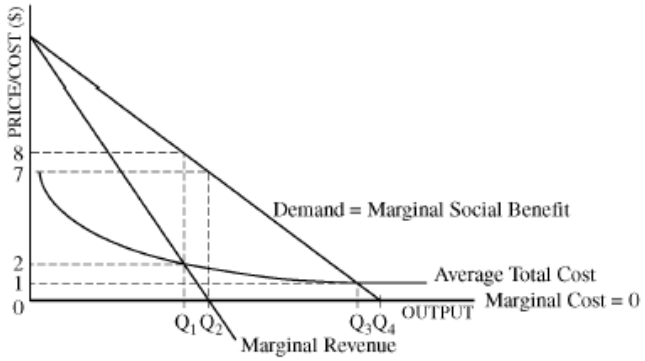
      (i) The number of firms

      (ii) The company's profit

   (d) In the long run, if the company continues to produce, will it produce the allocatively efficient level of output? Explain.

   (e) In the long run, will the company be operating in a region where economies of scale exist? Explain.

FRQ Micro 2010B



1. The diagram above shows the cost and revenue curves for a bridge to a popular island. The marginal cost of crossing the bridge is zero and is indicated in the diagram as the horizontal axis. The price is the toll to cross the bridge, and the output is the number of autos that cross the bridge each day.

   (a) Assume that a private firm owns the bridge and maximizes profits. Based on the diagram, determine each of the following.

      (i) Output

      (ii) Price

   (b) Now assume that a municipality owns the bridge and sets the price to achieve allocative efficiency. Based on the diagram, determine each of the following.

      (i) Output

      (ii) Price

   (c) At a price of $1, is the municipality's accounting profit positive, negative, or zero? Explain.

   (d) Suppose that the municipality sets a break-even price that generates revenues to just cover all economic costs.

      (i) Based on the diagram, determine the break-even output.

      (ii) At the output you determined in part (d)(i), is the demand relatively elastic, relatively inelastic, unit elastic, perfectly elastic, or perfectly inelastic?

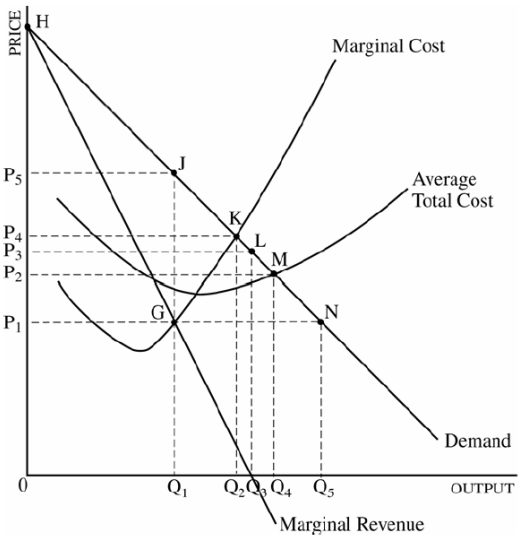
   (e) If a company begins to provide access to the island via commercial watercraft, what will happen to each of the following in the diagram?

      (i) The demand curve for bridge crossings

      (ii) The profit-maximizing output

   (f) Suppose the long-run average total cost is strictly downward sloping. Would it be efficient to build a second bridge? Explain.

Use the graph to the right for questions 39 and 40



39. If the monopolist chooses to maximize total revenue rather than total profit, it will choose which combination of price and output?

	Price	Output
(A)	P_1	Q_5
(B)	p_2	Q_4
(C)	P_3	Q_3
(D	P_4	Q_4
(E)	P_5	Q_5

40. If the monopolist produces the allocatively efficient level of output rather than the profit-maximizing level of output, consumer surplus will

(A) decrease by the area P_5JKP_4
(B) decrease by the area P_5JMP_2
(C) increase by the area P_5JGP_1
(D) increase by the area P_5JKP_4
(E) increase by the area P_5JMP_2

51. A profit-maximizing monopolist selects its output level in the

(A) inelastic region of its demand curve
(B) elastic region of its demand curve
(C) range of output where marginal revenue is rising
(D) range of output where total cost is falling
(E) range of output where marginal cost is falling

53. Which of the following is a source of monopoly power?

(A) Scarcity
(B) Elasticity of demand
(C) Barriers to entry
(D) Low profits
(E) Free markets

If the marginal cost curve of a monopolist shifts up, which of the following will occur to the monopolist's price and output?

	Price	Output
(A)	Decrease	Increase
(B)	Decrease	Decrease
(C)	Increase	No change
(D)	Increase	Increase
(E)	Increase	Decrease

		Gmine	
		Cheat	Not Cheat
Bmine	Cheat	\$10, \$5	\$25, \$20
	Not Cheat	\$5, \$15	\$20, \$25

Which of the following correctly describes the dominant strategy of each firm?

(A) Neither Gmine nor Bmine has a dominant strategy.
(B) Gmine's dominant strategy is to not cheat; Bmine does not have a dominant strategy.
(C) Gmine's dominant strategy is to cheat; Bmine does not have a dominant strategy.
(D) Gmine's dominant strategy is to cheat; Bmine's dominant strategy is to not cheat.
(E) Gmine's dominant strategy is to not cheat; Bmine's dominant strategy is to cheat.

9. Which of the following statements about a monopolistically competitive firm in long-run equilibrium is true?

(A) It has excess capacity, even though its long-run profit is zero and its output price equals its marginal cost.
(B) It has excess capacity and its long-run profit is positive, even though its marginal revenue equals its marginal cost.
(C) It has excess capacity and its output price exceeds its marginal cost, even though its long-run profit is zero.
(D) It has no excess capacity and its long-run profit is zero.
(E) It has no excess capacity and its marginal revenue equals its marginal cost.