Fall 2009

MICROECONOMICS: HOMEWORK – ANSWER_KEY

Chapter 15: Pages: 339

6. One example of price discrimination is in publishing books. Publishers charge a much higher price for hardback books than for paperback books—far higher than the difference in production costs. Publishers do this because die-hard fans will pay more for a hardback book when the book is first released. Those who don't value the book as highly will wait for the paperback version to come out. The publisher makes a greater profit this way than if it charged just one price.

   A second example is the pricing of movie tickets. Theaters give discounts to children and senior citizens because they have a lower willingness to pay for a ticket. Charging different prices helps the theater increase its profit above what it would be if it charged just one price.

   Many other examples are possible.

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5. a. The following table shows total revenue and marginal revenue for each price and quantity sold:

Price	Quantity	Total Revenue	Marginal Revenue	Total Cost	Profit
24	10,000	$240,000	----	$50,000	$190,000
22	20,000	440,000	$20	100,000	340,000
20	30,000	600,000	16	150,000	450,000
18	40,000	720,000	12	200,000	520,000
16	50,000	800,000	8	250,000	550,000
14	60,000	840,000	4	300,000	540,000

   b. Profits are maximized at a price of $16 and quantity of 50,000. At that point, profit is $550,000.

   c. As Johnny's agent, you should recommend that he demand $550,000 from them, so he receives all of the profit (rather than the record company).

Chapter 16: Pages: 362

1. The three attributes of monopolistic competition are: (1) there are many sellers; (2) each seller produces a slightly different product; and (3) firms can enter or exit the market without restriction. Monopolistic competition is like monopoly because firms face a downward-sloping demand curve, so price exceeds marginal cost. Monopolistic competition is like perfect competition because, in the long run, price equals average total cost, as free entry and exit drive economic profit to zero.

2. In Figure 2, a firm has demand curve D_1 and marginal-revenue curve MR_1. The firm is

making profits because at quantity Q_1, price (P_1) is above average total cost (*ATC*). Those profits induce other firms to enter the industry, causing the demand curve to shift to D_2 and the marginal-revenue curve to shift to MR_2. The result is a decline in quantity to Q_2, at which point the price (P_2) equals average total cost (*ATC*), so profits are now zero.

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3. a. Both a firm in monopolistic competition and a monopoly firm face a downward-sloping demand curve.

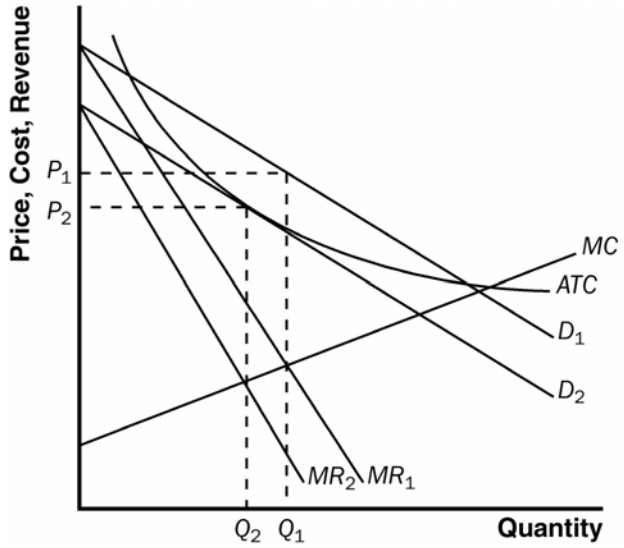
   b. Both a firm in monopolistic competition and a monopoly firm have marginal revenue that is less than price.

   c. A firm in monopolistic competition faces the entry of new firms selling similar products.

   d. A monopoly firm earns economic profit in the long run.

   e. Both a firm in monopolistic competition and a monopoly firm equate marginal revenue and marginal cost.

   f. Neither a firm in monopolistic competition nor a monopoly firm produce the socially efficient quantity of output.



9. a. Perdue created a brand name for chicken by advertising. By doing so, he was able to differentiate his product from other chicken, gaining market power.

   b. Society gained to the extent that Perdue has a great incentive to maintain the quality of his chicken. Society lost to the extent that the market for chicken became less competitive, with the associated deadweight loss.

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5. The prisoners' dilemma is a game between two people or firms that illustrates why it is difficult for opponents to cooperate even when cooperation would make them all better off. Each person or firm has a great incentive to cheat on any cooperative agreement to make himself or itself better off. Thus, firms have a difficult time maintaining a cooperative agreement.

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6. a. The payoffs are:

		Your Decision	
		Work	Shirk
Classmate's Decision	Work	You get 15 units of happiness Classmate gets 15 units of happiness	You get 30 units of happiness Classmate gets 5 units of happiness
	Shirk	You get 5 units of happiness Classmate gets 30 units of happiness	You get 10 units of happiness Classmate gets 10 units of happiness

b. The likely outcome is that both of you will shirk. If your classmate works, you're better off shirking, because you would rather have 30 units of happiness rather than 15. If your classmate shirks, you are better off shirking because you would rather have 10 units of happiness rather than 5. So your dominant strategy is to shirk. Your classmate faces the same payoffs, so he or she will also shirk.

c. If you are likely to work with the same person again, you have a greater incentive to work, so that your classmate will work, and you will both be better off. In repeated games, cooperation is more likely.

d. The payoff matrix would become:

		Your Decision	
		Work	Shirk
Classmate's Decision	Work	You get 15 units of happiness Classmate gets 65 units of happiness	You get 30 units of happiness Classmate gets 25 units of happiness
	Shirk	You get 5 units of happiness Classmate gets 50 units of happiness	You get 10 units of happiness Classmate gets 10 units of happiness

Work is a dominant strategy for this new classmate. Therefore, the Nash equilibrium will be for you to shirk and your classmate to work. You would get a B and thus would prefer this classmate to the first. However, he would prefer someone with a dominant strategy of working as well so that he could get an A.

8. a. If Kona enters, Big Brew would want to maintain a high price. If Kona does not enter, Big Brew would want to maintain a high price. Thus, Big Brew has a dominant strategy of maintaining a high price.

If Big Brew maintains a high price, Kona would enter. If Big Brew maintains a low price, Kona would not enter. Kona does not have a dominant strategy.

b. Because Big Brew has a dominant strategy of maintaining a high price, Kona should enter.

c. There is only one Nash equilibrium. Big Brew will maintain a high price and Kona will enter.

d. Little Kona should not believe this threat from Big Brew because it is not in Big Brew's interest to carry out the threat. If Little Kona enters, Big Brew can set a high price, in which case it makes $3 million, or Big Brew can set a low price, in which case it makes $1 million. Thus the threat is an empty one, which Little Kona should ignore; Little Kona should enter the market.

e. If the two firms could successfully collude, they would agree that Big Brew would maintain a high price and Kona would remain out of the market. They could then split a profit of $7 million.