Chapter 10 Exercises

Self-Check Questions

1. Classify the following as a government-enforced barrier to entry, a barrier to entry that is not government-enforced, or a situation that does not involve a barrier to entry.

   a. A patented invention

   b. A popular but easily copied restaurant recipe

   c. An industry where economies of scale are very small compared to the size of demand in the market

   d. A well-established reputation for slashing prices in response to new entry

   e. A well-respected brand name that has been carefully built up over many years

2. Classify the following as a government-enforced barrier to entry, a barrier to entry that is not government-enforced, or a situation that does not involve a barrier to entry.

   a. A city passes a law on how many licenses it will issue for taxicabs

   b. A city passes a law that all taxicab drivers must pass a driving safety test and have insurance

   c. A well-known trademark

   d. Owning a spring that offers very pure water

   e. An industry where economies of scale are very large compared to the size of demand in the market

3. Suppose the local electrical utility, a legal monopoly based on economies of scale, was split into four firms of equal size, with the idea that eliminating the monopoly would promote competitive pricing of electricity. What do you anticipate would happen to prices?

4. If Congress reduced the period of patent protection from twenty years to ten years, what would likely happen to the amount of private research and development?

5. Suppose demand for a monopoly's product falls so that its profit-maximizing price is below average variable cost. How much output should the firm supply? *Hint*: draw the graph.

6. Imagine a monopolist could charge a different price to every customer based on how much they were willing to pay. How would this affect monopoly profits?

Review Questions

7. How is a monopoly different from perfect competition?

8. What is a barrier to entry? Give some examples.

9. What is a natural monopoly?

10. What is a legal monopoly?

11. What is predatory pricing?

12. How is intellectual property different from other property?

13. By what legal mechanisms is intellectual property protected?

14. In what sense is a natural monopoly "natural"?

15. How is the demand curve perceived by a perfectly competitive firm different from the demand curve perceived by a monopolist?

16. How does the demand curve perceived by a monopolist compare with the market demand curve?

17. Is a monopolist a price taker? Explain briefly.

18. What is the usual shape of a total revenue curve for a monopolist? Why?

19. What is the usual shape of a marginal revenue curve for a monopolist? Why?

20. How can a monopolist identify the profit-maximizing level of output if it knows its total revenue and total cost curves?

21. How can a monopolist identify the profit-maximizing level of output if it knows its marginal revenue and marginal costs?

22. When a monopolist identifies its profit-maximizing quantity of output, how does it decide what price to charge?

23. Is a monopolist allocatively efficient? Why or why not?

24. How does the quantity produced and price charged by a monopolist compare to that of a perfectly competitive firm?

Critical Thinking Questions

25. ALCOA does not have the monopoly power it once had. How do you suppose their barriers to entry were weakened?

26. Why are generic pharmaceuticals significantly cheaper than name-brand ones?

27. For many years, the Justice Department has tried to break up large firms like IBM, Microsoft, and most recently Google, on the grounds that their large market share made them essentially monopolies. In a global market, where U.S. firms compete with firms from other countries, would this policy make the same sense as it might in a purely domestic context?

28. Intellectual property laws are intended to promote innovation, but some economists, such as Milton Friedman, have argued that such laws are not desirable. In the United States, there is no intellectual property protection for food recipes or fashion designs. Considering the state of these two industries, and bearing in mind the discussion of the inefficiency of monopolies, can you think of any reasons why intellectual property laws might hinder innovation in some cases?

29. Imagine that you are managing a small firm and thinking about entering the market of a monopolist. The monopolist is currently charging a high price, and you have calculated that you can make a nice profit charging $10 less than the monopolist. Before you challenge the monopolist, what possibility should you consider for how the monopolist might react?

30. If a monopoly firm is earning profits, how much would you expect these profits to be diminished by entry in the long run?

Problems

31. Return to Figure 3 in Lesson 10.1. Suppose P_0 is \$10, and P_1 is \$11. Suppose a new firm with the same *LRAC* curve as the incumbent tries to break into the market by selling 4,000 units of output. Estimate from the graph what the new firm's average cost of production would be. If the incumbent continues to produce 6,000 units, how much output would be supplied to the market by the two firms? Estimate what would happen to the market price as a result of the supply of both the incumbent firm and the new entrant. Approximately how much profit would each firm earn?

32. Draw the demand, marginal revenue, and marginal cost curves from Figure 4 in Lesson 10.2, and identify the quantity of output the monopoly wishes to supply and the price it will charge. Suppose demand for the monopoly's product increases dramatically. Draw the new demand curve. What happens to the marginal revenue as a result of the increase in demand? What happens to the marginal cost curve? Identify the new profit-maximizing quantity and price. Does the answer make sense to you?

33. Draw a monopolist's demand, marginal revenue, and marginal cost curves. Identify the monopolist's profit-maximizing output level. Now, think about a slightly higher level of output (say Q_0+1). According to the graph, is there any consumer willing to pay more than the marginal cost of that new level of output? If so, what does this mean?