

Quiz #6 -- November 19, 2020

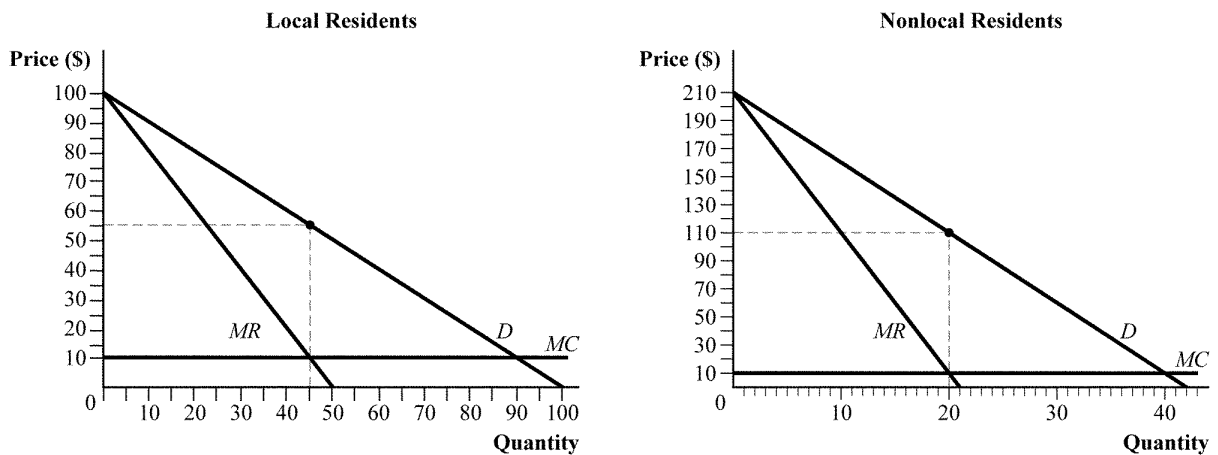
1. Which of the following requirements is necessary to practice price discrimination?

- I. The firm must have market power.
- II. The firm must be able to prevent arbitrage of its product.
- III. The firm must face a perfectly elastic demand curve.
- IV. The firm must operate in a perfectly competitive industry.

- A) II, III, and IV B) I, II, and III C) I and II D) III and IV

Use the following to answer question 2.

Figure 10.4



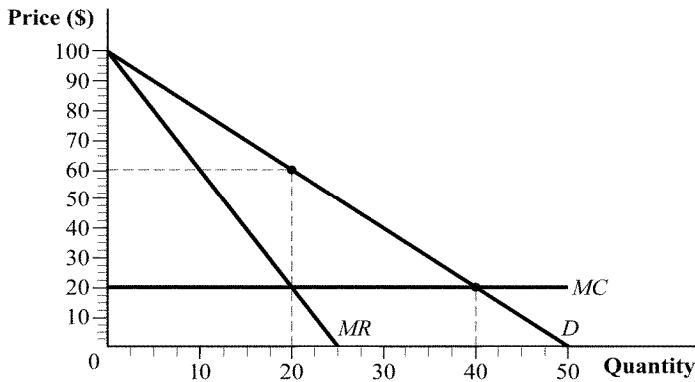
2. (Figure 10.4) If the firm can segment the market by residence, it will earn producer surplus of:

- A) \$2,680. B) \$4,025. C) \$2,012.50. D) \$1,800.50.

3. Sparkling Water Co. has determined that the price elasticity of demand for a case of its purified water by Michigan residents is -2.5 , while the price elasticity of demand by Florida residents is -2 . Assume that the marginal cost is constant at $\$8$. What price should Sparkling Water Co. charge Michigan and Florida customers?
- A) Customers in Michigan and Florida should be charged $\$16.00$ a case.
 - B) Michigan customers should be charged $\$13.33$ a case and Florida customers charged $\$16.00$ a case.
 - C) Michigan customers should be charged $\$20.00$ a case and Florida customers charged $\$12.00$ a case.
 - D) Michigan customers should be charged $\$13.33$ a case and Florida customers charged $\$24.00$ a case.
4. Suppose a firm's inverse demand curve is given by $P = 160 - 4Q$. Which of the following statements is (are) TRUE?
- I. The firm's marginal revenue curve is given by $MR = 160 - 8Q$.
 - II. The firm's marginal revenue cannot be negative.
 - III. The firm's marginal revenue curve is given by $MR = 160 - 0.50Q$.
 - IV. When $Q = 12$, $MR = \$64$.
- A) I and II B) III and IV C) II and III D) I and IV

Use the following to answer question 5.

Figure 9.7



5. (Figure 9.7) The levels of consumer surplus under monopoly and perfect competition are _____ and _____, respectively.

- A) \$600; \$2,000 B) \$200; \$400 C) \$800; \$3,200 D) \$400; \$1,600

6. The inverse demand for a drug that treats the blood cancer multiple myeloma is given by $P = 9,900 - 10Q$, where Q measures the number of drug treatments and P is the price per treatment. Suppose that the marginal cost per drug treatment is constant at \$100. What is the profit-maximizing price per drug treatment?

- A) \$10,000 B) \$5,000 C) \$990 D) \$490

7. Which of the following are sources of market power?

- I. government-issued patents and copyrights
- II. a Minnesota law requiring all new funeral homes to have an embalming room, which costs upward of \$30,000, whether or not it is functional or will be used
- III. A New York City law that makes it illegal to operate a taxi without a taxi medallion costing \$700,000.

- A) I, II, and III B) I C) II D) III

8. Bubba Golf, a manufacturer of golf clubs, can sell 4 drivers at \$600 each. To sell 5 drivers, Bubba Golf must lower the price to \$580 each. The marginal revenue of the fourth club is:

- A) \$20. B) \$400. C) \$500. D) \$580.

9. A firm with market power has an inverse demand curve of $P = 450 - 5Q$ and marginal cost of $MC = 40Q$, where Q is measured in thousands. What is the deadweight loss from market power at the firm's profit-maximizing output level?
- A) \$15,000 B) \$280,000 C) \$22,500 D) \$9,400
10. The inverse demand curve for a firm with market power is $P = 60 - Q$, and its marginal cost is given by $MC = 2Q$. If the firm is able to practice perfect (first-degree) price discrimination, the deadweight loss will:
- A) decrease from \$37.50 to \$0. C) increase from \$0 to \$65.
B) decrease from \$45 to \$15. D) increase from \$30 to \$45.

Answer Key - F20-6

1. C
2. B
3. B
4. D
5. D
6. B
7. A
8. C
9. C
10. A