

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) A firm's cost of production is determined by all of the following *except* 1) _____
A) the amount of corporate taxes it must pay on its profit.
B) the technology used to produce its output.
C) the cost of raw material used in production.
D) the productivity of its workers.
- 2) If a producer is not able to expand its plant capacity immediately, it is 2) _____
A) bankrupt. B) losing money.
C) operating in the long run. D) operating in the short run.
- 3) Which of the following is a fixed cost? 3) _____
A) payment to hire a security worker to guard the gate to the factory around the clock
B) costs of raw materials
C) wages to hire assembly line workers
D) payments to an electric utility
- 4) Which of the following is an implicit cost of production? 4) _____
A) interest paid on a loan to a bank
B) rent that could have been earned on a building owned and used by the firm
C) the utility bill paid to water, electricity, and natural gas companies
D) wages paid to labor plus the cost of carrying benefits for workers
- 5) If four workers can produce 18 chairs a day and five can produce 20 chairs a day, the marginal 5) _____
product of the fifth worker is
A) 4 chairs. B) 38 chairs. C) 3 chairs. D) 2 chairs.
- 6) Yogurt Extreme currently hires 7 workers. When it added an 8th worker, its output actually fell. 6) _____
Which of the following statements is true?
A) The total product becomes negative.
B) The average product of the eighth worker is negative.
C) The eighth worker is not as skilled as the seventh worker.
D) The marginal product of the eighth worker must be negative.
- 7) The law of diminishing marginal returns states 7) _____
A) that at some point, adding more of a variable input to a given amount of a fixed input will cause the marginal product of the variable input to decline.
B) that at some point, adding more of a fixed input to a given amount of variable inputs will cause the marginal product of the variable input to decline.
C) average total costs of production initially fall and after some point starts to rise at a decreasing rate as output increases.
D) that in the presence of a fixed factor, at some point average product of labor starts to fall as more and more variable inputs are added.

- 8) The law of diminishing marginal returns
- A) causes the difference between average total cost and average variable cost to get smaller as output increases.
 - B) explains why the average total cost and marginal cost curves are U-shaped in the short run.
 - C) explains why the average total cost, average fixed cost and the marginal cost curves are U-shaped in the short run.
 - D) causes average total costs to rise at a decreasing rate as output increases.

8) _____

Table 11-1

Number of Workers	Mushrooms per Day (pounds)
1	12
2	30
3	45
4	50
5	54
6	56

Table 11-1 shows the technology of production at the Matsuko's Mushroom Farm for the month of May 2011.

- 9) *Refer to Table 11-1.* Diminishing marginal returns sets in when the _____ worker is hired.
- A) 3rd
 - B) 2nd
 - C) 4th
 - D) None of the above; the production function displays increasing marginal returns.
- 10) *Refer to Table 11-1.* What is the marginal product of the 4th worker?
- A) 5 pounds
 - B) 50 pounds
 - C) 137 pounds
 - D) 12.5 pounds
- 11) One reason why, in the short run, the marginal product of labor might increase initially as more workers are hired is that
- A) the best workers are hired first and later hires are not as skillful.
 - B) the first workers hired get to use the best equipment.
 - C) beyond some point, a firm has hired too many workers.
 - D) specialization allows a worker to focus on one task, thereby increasing her proficiency at that task.
- 12) In the short run, if marginal product is at its maximum, then
- A) average variable cost is at its minimum.
 - B) marginal cost is at its minimum.
 - C) total cost is at its maximum.
 - D) average cost is at its minimum.
- 13) Which of the following costs will *not* change as output changes?
- A) total fixed cost
 - B) average variable cost
 - C) average fixed cost
 - D) total variable cost
 - E) marginal cost

9) _____

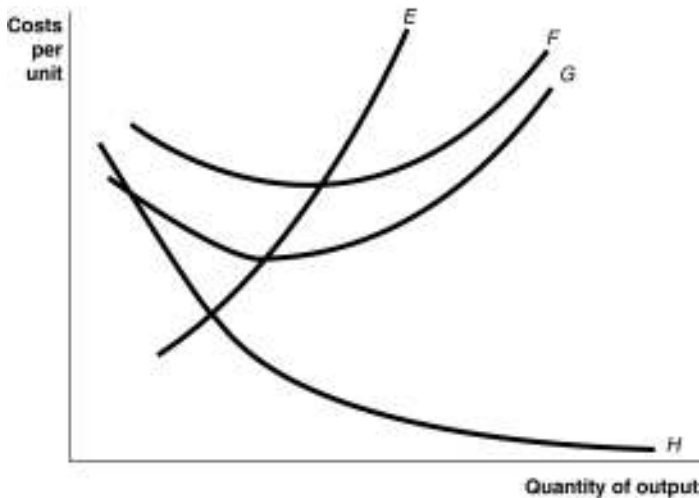
10) _____

11) _____

12) _____

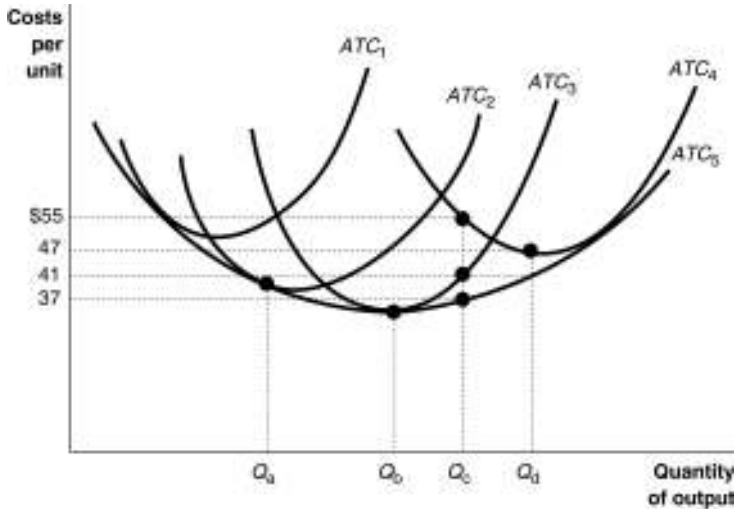
13) _____

Figure 11-4



- 14) Refer to Figure 11-4. Identify the curves in the diagram. 14) _____
- A) E = average fixed cost curve; F = average total cost curve; G = average variable cost curve, H = marginal cost curve
- B) E = marginal cost curve; F = average total cost curve; G = average variable cost curve; H = average fixed cost curve.
- C) E = marginal cost curve; F = total cost curve; G = variable cost curve, H = average fixed cost curve
- D) E = average fixed cost curve; F = variable cost curve; G = total cost curve, H = marginal cost curve
- 15) Refer to Figure 11-4. Curve G approaches curve F because 15) _____
- A) fixed cost falls as capacity rises.
- B) average fixed cost falls as output rises.
- C) total cost falls as more and more is produced.
- D) marginal cost is above average variable costs.
- 16) If the marginal cost curve is below the average variable cost curve, then 16) _____
- A) average variable cost is increasing.
- B) marginal cost must be decreasing.
- C) average variable cost could either be increasing or decreasing.
- D) average variable cost is decreasing.
- 17) Long-run cost curves are U-shaped because 17) _____
- A) of the law of diminishing returns. B) of the law of supply.
- C) of economies and diseconomies of scale. D) of the law of demand.
- 18) Which of the following statements about minimum efficient scale is **FALSE**? 18) _____
- A) Any increase in the scale of operation will encounter diseconomies of scale.
- B) The short-run average total cost curve's minimum point is equal to the long run average cost curve's minimum point.
- C) All possible economies of scale have been exhausted.
- D) An increase in the output level will increase profit.

Figure 11-5



- 19) Refer to Figure 11-5. Identify the minimum efficient scale of production. 19) _____
 A) Q_b B) Q_d C) Q_c D) Q_a
- 20) Economies of scale exist as a firm increases its size in the long run because of all of the following except 20) _____
 A) the firm can afford more sophisticated technology in production.
 B) as a firm expands its production, its profit margin per-unit of output increases.
 C) labor and management can specialize even further in their tasks.
 D) as a larger input buyer, the firm can purchase inputs at a lower per unit cost.
- 21) Assume the market for organic produce sold at farmers' markets is perfectly competitive. All else equal, as more farmers choose to produce and sell organic produce at farmers' markets, what is likely to happen to the equilibrium price of the produce and profits of the organic farmers in the long run? 21) _____
 A) The equilibrium price is likely to increase and profits are likely to remain unchanged.
 B) The equilibrium price is likely to increase and profits are likely to increase.
 C) The equilibrium price is likely to decrease and profits are likely to decrease.
 D) The equilibrium price is likely to remain unchanged and profits are likely to increase.
- 22) Which of the following is *not* a characteristic of a perfectly competitive market structure? 22) _____
 A) There are no restrictions to entry by new firms.
 B) There are a very large number of firms that are small compared to the market.
 C) There are restrictions on exit of firms.
 D) All firms sell identical products.
- 23) The price of a seller's product in perfect competition is determined by 23) _____
 A) a few of the sellers. B) the individual demander.
 C) the individual seller. D) market demand and market supply.
- 24) If the market price is \$20 in a perfectly competitive market, the marginal revenue from selling the fifth unit is 24) _____
 A) \$20. B) \$4. C) \$100. D) \$10.

- 25) Which of the following is *not* true for a firm in perfect competition? 25) _____
- A) Price equals average revenue.
 - B) Profit equals total revenue minus total cost.
 - C) Average revenue is greater than marginal revenue.
 - D) Marginal revenue equals the change in total revenue from selling one more unit of output.
- 26) If, for the last unit of a good produced by a perfectly competitive firm, $MR > MC$, then in producing it, the firm 26) _____
- A) added more to total costs than it added to total revenue.
 - B) added more to total revenue than it added to total cost.
 - C) is maximizing marginal profit.
 - D) has minimized its marginal losses.
- 27) In a graph with output on the horizontal axis and total revenue on the vertical axis, what is the shape of the total revenue curve for a perfectly competitive seller? 27) _____
- A) a horizontal line
 - B) inverted U-shaped
 - C) U-shaped
 - D) a ray from the origin
- 28) Assume that price is greater than average variable cost. If a perfectly competitive seller is producing at an output where price is \$11 and the marginal cost is \$14.54, then to maximize profits the firm should 28) _____
- A) continue producing at the current output.
 - B) produce a smaller level of output.
 - C) produce zero output.
 - D) produce a larger level of output.
- 29) If a perfectly competitive firm's price is less than its average total cost but greater than its average variable cost, the firm 29) _____
- A) is incurring a loss.
 - B) is earning a profit.
 - C) should shut down.
 - D) is breaking even.

Figure 12-4

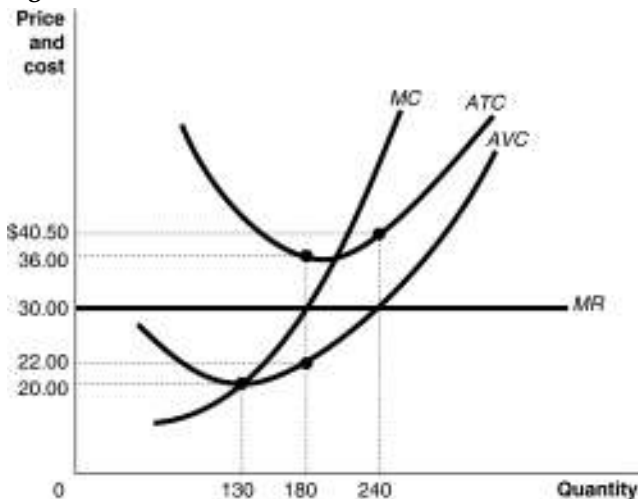
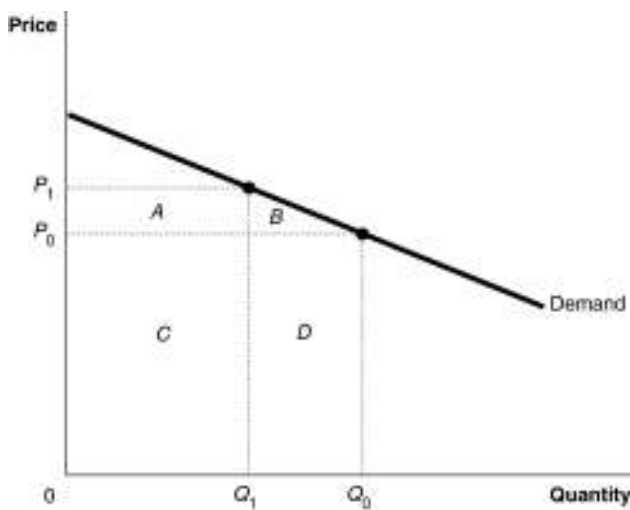


Figure 12-4 shows the cost and demand curves for a profit-maximizing firm in a perfectly competitive market.

- 30) Refer to Figure 12-4. If the market price is \$30 and the firm is producing output, what is the amount of the firm's profit or loss? 30) _____
- A) profit of \$1,440
 - B) profit of \$1,300
 - C) loss of \$1,080
 - D) loss of \$2,520

- 31) Refer to Figure 12-4. What is the amount of its total fixed cost? 31) _____
 A) \$2,520 B) \$14 C) \$1,440 D) \$1,080
- 32) Which of the following describes a situation in which every good or service is produced up to the point where the last unit provides a marginal benefit to consumers equal to the marginal cost of producing it? 32) _____
 A) allocative efficiency B) productive efficiency
 C) marginal efficiency D) profit maximization
- 33) Which of the following characteristics is common to monopolistic competition and perfect competition? 33) _____
 A) Each firm faces a downward-sloping demand curve.
 B) Firms produce identical products.
 C) Firms take market prices as given.
 D) Entry barriers into the industry are low.
- 34) When a monopolistically competitive firm cuts its price to increase its sales, it experiences a gain in revenue due to the 34) _____
 A) substitution effect. B) output effect.
 C) income effect. D) price effect.

Figure 13-1



- 35) Refer to Figure 13-1. The marginal revenue from the increase in price from P_0 to P_1 equals 35) _____
 A) the area $(A - D)$. B) the area $(B + D - A)$.
 C) the area $(C - B)$. D) the area $(D - A)$.
- 36) What is the profit-maximizing rule for a monopolistically competitive firm? 36) _____
 A) to produce a quantity such that marginal revenue equals marginal cost
 B) to produce a quantity that maximizes market share
 C) to produce a quantity such that price equals marginal cost
 D) to produce a quantity that maximizes total revenue

- 37) In the long run, what happens to the demand curve facing a monopolistically competitive firm that is earning short-run profits? 37) _____
- A) The demand curve will shift to the right and became more elastic.
 - B) The demand curve will shift to the right and became less elastic.
 - C) The demand curve will shift to the left and became more elastic.
 - D) The demand curve will shift to the left and became less elastic.

Figure 13-6



- 38) Refer to Figure 13-6. What is the monopolistic competitor's profit maximizing output? 38) _____
- A) Q_1 units
 - B) Q_2 units
 - C) Q_3 units
 - D) Q_4 units
- 39) In an oligopoly market 39) _____
- A) individual firms pay no attention to the behavior of other firms.
 - B) advertising of one firm has no effect on all other firms.
 - C) one firm's pricing decision affects all the other firms.
 - D) the pricing decisions of all other firms have no effect on an individual firm.
- 40) Which of the following is important in determining the extent of competition in an industry? 40) _____
- A) whether or not the industry product is differentiated or standardized
 - B) the minimum efficient scale of production relative to market demand
 - C) the minimum level of short run average total costs of production
 - D) the level of market demand for the industry's product
- 41) One reason why, in the last four decades, the number of new auto makers in the world has been very small compared to the past is that 41) _____
- A) governments restrict who can produce automobiles.
 - B) new auto makers cannot obtain necessary inputs to produce new cars.
 - C) new producers cannot match the economies of scale of existing auto makers.
 - D) the automobile cannot be improved upon in any way by new producers.

- 42) What is the dominant strategy in the prisoner's dilemma?
- A) Do not confess in the hope that the other prisoner also does not confess.
 - B) Each prisoner confesses.
 - C) Do not confess because the other prisoner will most likely confess.
 - D) There is no dominant strategy.

42) _____

Table 14-1

		Godrickporter's (G) Choices	
		Increase advertising budget	Leave advertising budget as is
Star Connections' (S) Choices	Increase advertising budget	G: \$16,000 profit S: \$8,000 profit	G: \$12,000 profit S: \$15,000 profit
	Leave advertising budget as is	G: \$8,000 profit S: \$10,000 profit	G: \$6,000 profit S: \$12,000 profit

Godrickporter and Star Connections are the only two airport shuttle and limousine rental service companies in the mid-sized town of Godrick Hollow. Each firm must decide on whether to increase its advertising spending to compete for customers. Table 14-1 shows the payoff matrix for this advertising game.

- 43) *Refer to Table 14-1.* What is the Nash equilibrium in this game?
- A) Godrickporter increases its advertising budget, but Star Connections does not.
 - B) Both Godrickporter and Star Connections increase their advertising budgets.
 - C) Star Connections increases its advertising budget, but Godrickporter does not.
 - D) There is no Nash equilibrium.
- 44) Consider two oligopolistic industries selling the same product in different locations. In the first industry, firms always match price changes by any other firm in the industry. In the second industry, firms always ignore price changes by any other firm. Which of the following statements is true about these two industries, holding everything else constant?
- A) Market prices are likely to be the same in both markets because they are both oligopolistic markets.
 - B) Market prices are likely to be higher in the first industry in which firms always match price changes by rival firms than in the second where firms ignore their rivals' price changes.
 - C) Market prices are likely to be lower in the first industry where firms always match price changes by rival firms than in the second where firms ignore their rivals' price changes.
 - D) No conclusions can be drawn about the pricing behavior under these very different firm behaviors.
- 45) A small member of a cartel like OPEC (imagine Nigeria) has an incentive to
- A) argue for the dissolution of the cartel.
 - B) agree to a low cartel production level and then produce more than its quota.
 - C) argue for larger production quotas for each member of the cartel.
 - D) abide by its individual production quota.

43) _____

44) _____

45) _____

Table 14-3

Saudi Arabia's (S) Choices			
		Low Output	High Output
Nigeria's (N) Choices	Low Output	S: \$100 million profit N: \$20 million profit	S: \$75 million profit N: \$12 million profit
	High Output	S: \$80 million profit N: \$30 million profit	S: \$60 million profit N: \$20 million profit

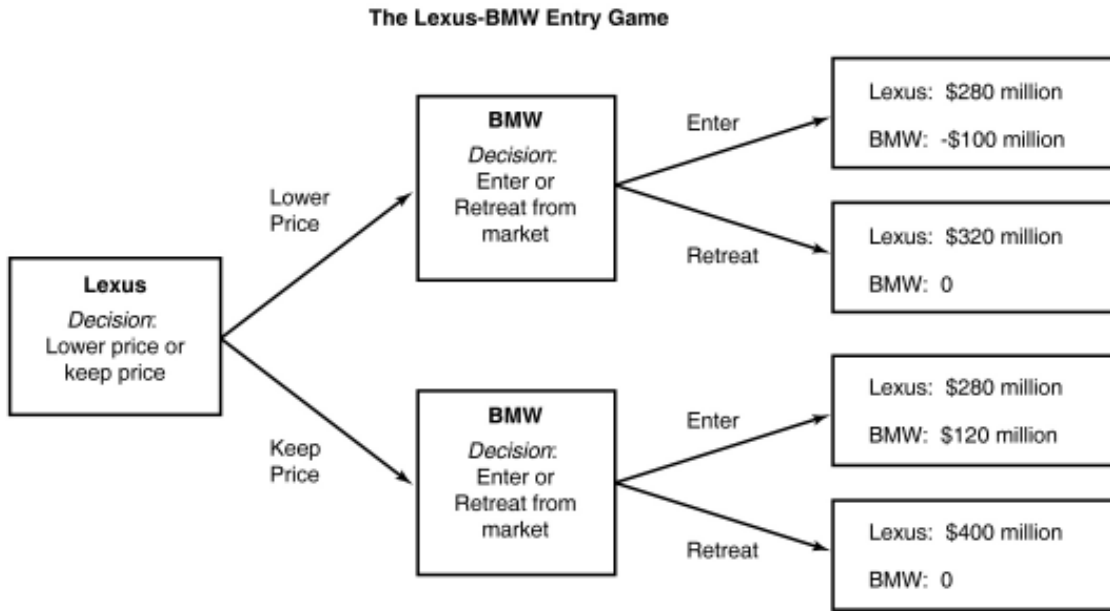
Suppose OPEC has only two producers, Saudi Arabia and Nigeria. Saudi Arabia has far more oil reserves and is the lower cost producer compared to Nigeria. The payoff matrix in Table 14-3 shows the profits earned per day by each country. "Low output" corresponds to producing the OPEC assigned quota and "high output" corresponds to producing the maximum capacity beyond the assigned quota.

46) Refer to Table 14-3. What is the Nash equilibrium in this game?

46) _____

- A) There is no Nash equilibrium.
- B) In the Nash equilibrium both Saudi Arabia and Nigeria produce a low output and earn a profit of \$100 million and \$20 million respectively.
- C) In the Nash equilibrium both Saudi Arabia and Nigeria produce a high output and earn a profit of \$60 million and \$20 million respectively.
- D) In the Nash equilibrium Saudi Arabia produces a low output and earns a profit of \$80 million and Nigeria produces a high output and \$30 million respectively.

Figure 14-1



Assume that Lexus (L) is the first automobile company to produce a luxury class hybrid automobile and is the only such company for the past four years. BMW is now considering producing its own luxury hybrid automobile and Lexus must decide whether or not to lower the price of its luxury hybrid to counter BMW's entry into the luxury hybrid niche.

- 47) Refer to Figure 14-1. Should Lexus lower its price in order to deter BMW's entry into the luxury hybrid automobile market? 47) _____
- A) No, because BMW will enter the market regardless of Lexus' decision about its price.
 - B) No, it should keep the same price and work to capitalize on its brand loyalty.
 - C) In terms of profit earned, it makes no difference whether Lexus lowers its price or not; in either case it will make \$280 million profit if BMW enters.
 - D) Yes, it will drive BMW out of the market.
- 48) Compared to a monopolistic competitor, a monopolist faces 48) _____
- A) a more elastic demand curve.
 - B) a demand curve that has a price elasticity coefficient of zero.
 - C) a more inelastic demand curve.
 - D) a more elastic demand curve at higher prices and a more inelastic demand curve at lower prices.
- 49) What is a network externality? 49) _____
- A) It refers to a situation in which a product's usefulness increases with the number of people using it.
 - B) It refers to a product that requires connection to a network for it to be useful.
 - C) It refers to lobbying to form a public enterprise.
 - D) It refers to having a network of suppliers and buyers for a good or service.

- 50) For a natural monopoly to exist,
- A) a firm's long-run average cost curve must exhibit diseconomies of scale beyond the economically efficient output level.
 - B) a firm must have a government-imposed barrier.
 - C) a firm must continually buy up its rivals.
 - D) a firm's long-run average cost curve must exhibit economies of scale throughout the relevant range of market demand.

50) _____

- 51) The demand curve for the monopoly's product is
- A) more inelastic than the market demand for the product.
 - B) more elastic than the market demand for the product.
 - C) the market demand for the product.
 - D) a function of the firm's own demand determinants and the output decisions of rival firms in the market

51) _____

Figure 15-1

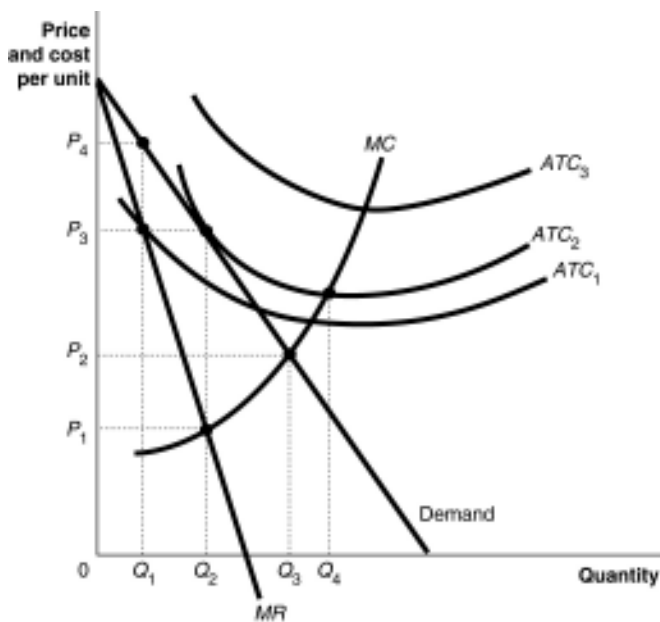


Figure 15-1 above shows the demand and cost curves facing a monopolist.

- 52) Refer to Figure 15-1. The firm's profit-maximizing price is
- A) P_2 .
 - B) P_4 .
 - C) P_1 .
 - D) P_3 .

52) _____

Figure 15-5

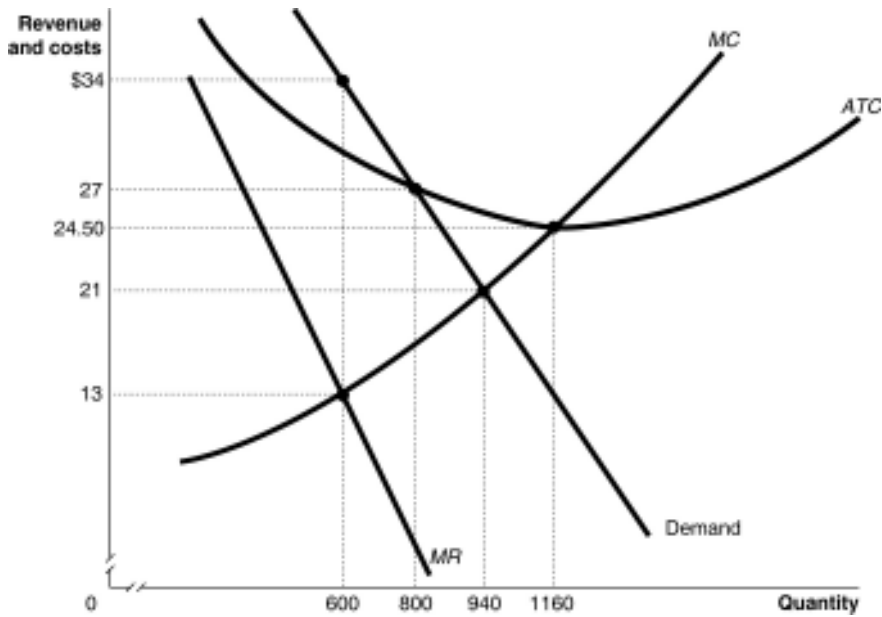
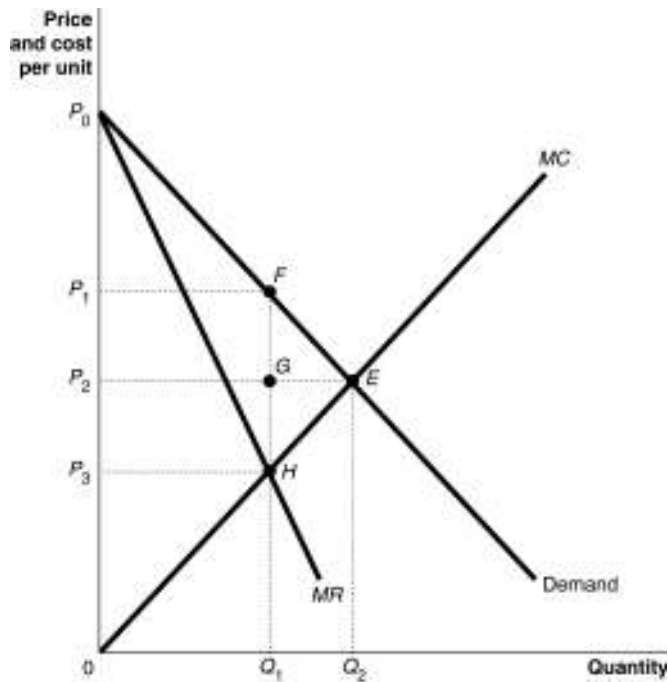


Figure 15-5 shows the demand and cost curves for a monopolist.

- 53) Refer to Figure 15-5. What is the economically efficient output level for society? 53) _____
 A) 600 units B) 940 units C) 800 units D) 1160 units
- 54) Why does a monopoly cause a deadweight loss? 54) _____
 A) because it appropriates a portion of consumer surplus for itself
 B) because it does not produce some output for which supply exceeds demand
 C) because it increases producer surplus at the expense of consumer surplus
 D) because it does not produce some output for which marginal benefit exceeds marginal cost

Figure 15-6



- 55) Refer to Figure 15-6. Compared to a perfectly competitive market, consumer surplus is lower in a monopoly by an amount equal to the _____
- A) area FHE. B) area P_1P_2EF . C) area P_1P_2GF . D) area FGE.

Answer Key

Testname: UNTITLED1

- 1) A
- 2) D
- 3) A
- 4) B
- 5) D
- 6) D
- 7) A
- 8) B
- 9) A
- 10) A
- 11) D
- 12) B
- 13) A
- 14) B
- 15) B
- 16) D
- 17) C
- 18) D
- 19) A
- 20) B
- 21) C
- 22) C
- 23) D
- 24) A
- 25) C
- 26) B
- 27) D
- 28) B
- 29) A
- 30) C
- 31) A
- 32) A
- 33) D
- 34) B
- 35) A
- 36) A
- 37) C
- 38) B
- 39) C
- 40) B
- 41) C
- 42) B
- 43) A
- 44) B
- 45) B
- 46) D
- 47) D
- 48) C
- 49) A
- 50) D

Answer Key

Testname: UNTITLED1

51) C

52) D

53) B

54) D

55) B