

ECONOMICS 1021A-002
Western University

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November 8, 2012

MIDTERM 2 MAKE-UP

INSTRUCTIONS:

1. The examination begins at **4:30 p.m.** and ends at **6:30 p.m.**
2. Check that your examination paper contains 21 pages.
3. Use a **BLACK PENCIL** to complete your Scantron Form.

Print your **NAME** and complete your **SIGNATURE**.

Enter your **STUDENT NUMBER**.

Enter your **SECTION NUMBER**, which is 002.

4. **Please hand in ALL MATERIALS.**
5. You may use a regular calculator but you may not use a programmable or graphing calculator.
6. Your cell phone must be switched off and left in your bag at the front of the exam room.

NOTE: QUESTIONS ARE PRINTED AT THE BACK OF EACH PAGE

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

- 1) Guy has an income (Y) of \$50 with which he can purchase DVDs (D) at \$10 each and haircuts (H) at \$20 each. Which one of the following represents Guy's budget line?
 - A) $20Y = Q_D + 10Q_H$
 - B) $50 = 10Q_D + 20Q_H$
 - C) $Y = 50 + Q_D + Q_H$
 - D) $Y = 10Q_D - 20Q_H$
 - E) $50 = Q_D + Q_H$

- 2) The initial budget equation for pop (p) and movies (m) is $Q_p = 20 - 4Q_m$, and the price of a pop is \$5. If the price of a pop falls to \$4, what is the new budget equation?
 - A) $Q_p = 25 - 5Q_m$
 - B) $Q_p = 25 - 2Q_m$
 - C) $Q_p = 25 - 4Q_m$
 - D) $Q_p = 20 - 5Q_m$
 - E) none of the above

- 3) The number of pizza slices is plotted on the horizontal axis and number of hot dogs is plotted on the vertical axis. If the price of a hot dog rises the
 - A) y-intercept and the slope of the budget line increase.
 - B) y-intercept and the slope of the budget line decrease.
 - C) y-intercept decreases and the slope of the budget line does not change.
 - D) x-intercept and the slope of the budget line increase.
 - E) x-intercept and the slope of the budget line decrease.

- 4) Which one of the following statements is *false*?
 - A) The marginal rate of substitution is the magnitude of the slope of an indifference curve.
 - B) The marginal rate of substitution increases as a consumer moves up along an indifference curve for ordinary goods.
 - C) A preference map consists of a series of indifference curves.
 - D) Indifference curves are bowed out from the origin.
 - E) Indifference curves are negatively sloped.

Use the figure below to answer the following question.

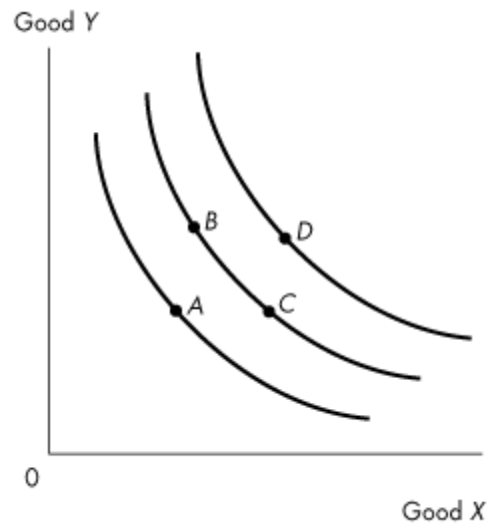


Figure 1

- 5) Figure 1 shows three indifference curves for Brenda. Which one of the following is *not* true?
- A) Brenda prefers consuming at point *D* to consuming at point *A*.
 - B) Brenda prefers consuming at point *D* to consuming at either point *B* or point *C*.
 - C) The marginal rate of substitution is higher at point *C* than at point *B*.
 - D) Brenda prefers consuming at point *B* to consuming at point *A*.
 - E) Brenda would be equally happy consuming at either point *B* or point *C*.

Use the figure below to answer the following question.

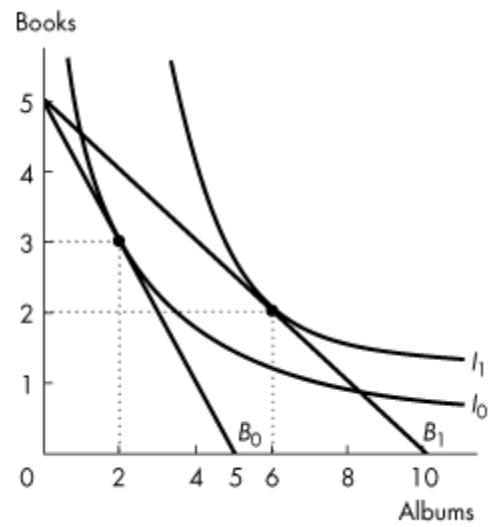


Figure 2

- 6) Refer to Figure 2. When Rashid chooses the consumption point of 2 books and 6 albums, his marginal rate of substitution is _____.
- A) 3 books per album
 - B) 2 books per album
 - C) 0.5 books per album
 - D) 1/3 books per album
 - E) 1 book per album

Use the figure below to answer the following question.

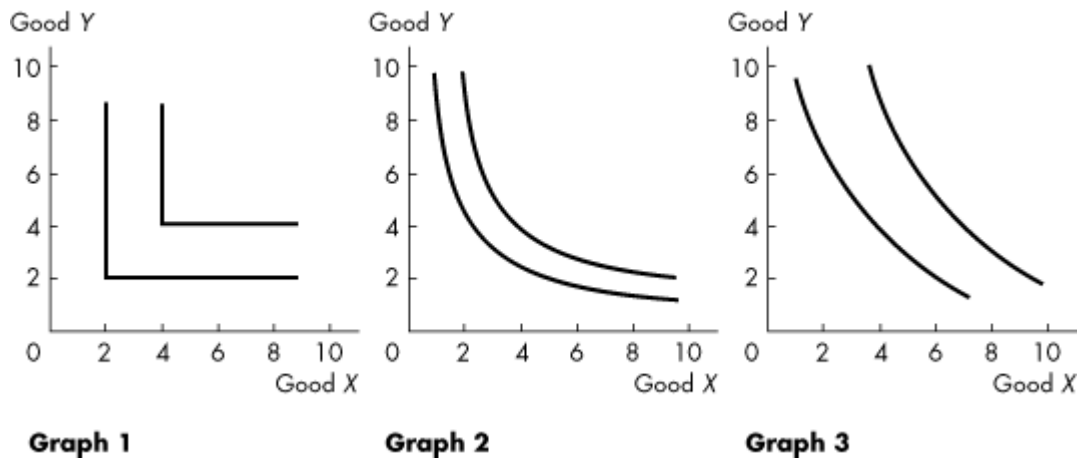


Figure 3

7) Refer to Figure 3. The graphs show indifference curves for various goods. Graph _____ best describes the pair of goods baseballs and baseball bats. Graph _____ best describes the pair of goods desktop computers and laptop computers.

- A) 1; 3
- B) 3; 2
- C) 2; 3
- D) 2; 1
- E) 1; 1

Use the figure below to answer the following question.

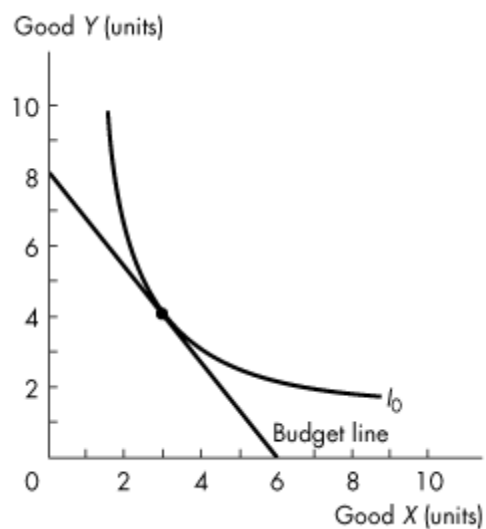


Figure 4

- 8) Consider the budget line and indifference curve in Figure 4. At the best affordable point, the marginal rate of substitution is
- A) $1/2$.
 - B) $3/4$.
 - C) $4/3$.
 - D) 4.
 - E) 2.

Use the figure below to answer the following question.

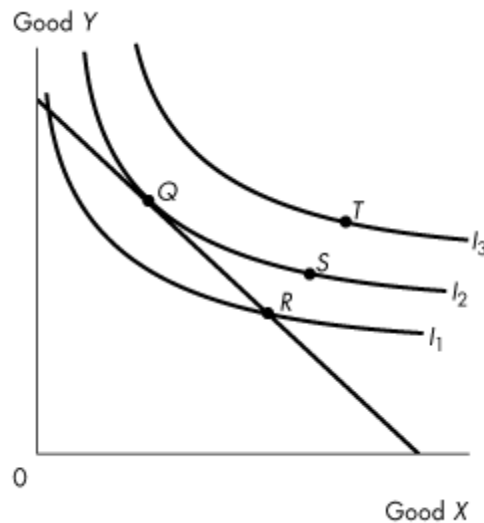


Figure 5

9) Which one of the following statements about Figure 5 is *true*?

- A) Point *R* is not affordable.
- B) Point *T* is preferred to point *Q*, but *T* is not affordable.
- C) Points *Q* and *S* cost the same, but *Q* is preferred to *S*.
- D) Point *S* is preferred to point *Q*, but *S* is not affordable.
- E) Point *R* is the best affordable point.

10) Karen consumes chocolate and candles. When Karen is at her best affordable point, she is

- A) on the indifference curve that is farthest from the origin and maximizing the marginal rate of substitution
- B) on her budget line, on her highest attainable indifference curve, and has a marginal rate of substitution between chocolate and candles that is equal to the relative price of chocolate and candles
- C) on the indifference curve that is closest to the origin and minimizing the marginal rate of substitution
- D) on or inside her budget line, on her highest attainable indifference curve, and has a marginal rate of substitution between chocolate and candles that is equal to the relative price of chocolate and candles
- E) on her budget line, on her highest attainable indifference curve, and maximizing the marginal rate of substitution

Use the table below to answer the following question.

Table 1

Taco Stands		Pizza Sellers	
Firm	Sales (dollars)	Firm	Sales (dollars)
Burning Belly	150	Prairie Pizza	600
Fire Mouth	70	Pizza Condo	400
Taco Taco	50	Inferior Pizza	140
Taco Hut	<u>30</u>	McDaisy's	<u>60</u>
Top 4 sales	300	Top 4 sales	1,200
Total Sales	900	Total Sales	1,500

- 11) Refer to Table 1. The four-firm concentration ratio for the pizza sellers is
- A) 100 percent.
 - B) 40 percent.
 - C) 80 percent.
 - D) 33 percent.
 - E) 12.5 percent.
- 12) In a monopoly, the four-firm concentration ratio is
- A) 100 percent.
 - B) almost zero.
 - C) 50 percent.
 - D) 25 percent.
 - E) 75 percent.
- 13) If a market is shared equally by 100 firms, the Herfindahl-Hirschman Index is
- A) 1/100.
 - B) 50.
 - C) 1.
 - D) 1/50.
 - E) 100.
- 14) The correct ranking of the four basic market structures from low HHI (Herfindahl-Hirschman Index) to high HHI is
- A) perfect competition, oligopoly, monopolistic competition, monopoly.
 - B) monopoly, monopolistic competition, oligopoly, perfect competition.
 - C) perfect competition, monopolistic competition, oligopoly, monopoly.
 - D) monopoly, oligopoly, monopolistic competition, perfect competition.
 - E) monopolistic competition, perfect competition, oligopoly, monopoly.

Use the information below to answer the following question.

Fact 1

January 31, 2008: Starbucks will open 75 more stores abroad than originally predicted, for a total of 975.

February 25, 2008: For three hours on Tuesday, Starbucks will shut down every single one of its 7,100 stores so that baristas can receive a refresher course.

June 2, 2008: Starbucks replaces baristas with vending machines.

July 18, 2008: Starbucks is closing 616 stores by the end of March.

- 15) Refer to Fact 1. The decisions made on _____ are long-run decisions because they _____.
- A) June 2; are changes to labour which affect people for the long term
 - B) February 25, June 2, and July 18; all deal with stores located in the United States
 - C) January 31 and July 18; change Starbucks' plant
 - D) January 31 and February 25; are the earliest decisions
 - E) None of the above.
- 16) When the marginal product of labour is greater than the average product of labour,
- A) the firm is experiencing diminishing marginal returns.
 - B) the average product of labour is increasing.
 - C) the firm is experiencing constant returns.
 - D) the marginal product of labour is increasing.
 - E) the total product curve is negatively sloped.
- 17) The marginal product of labour initially _____ and eventually _____. The average product of labour initially _____ and eventually _____.
- A) decreases; increases; increases; decreases
 - B) increases; remains constant; increases; decreases
 - C) decreases; increases; decreases; increases
 - D) increases; decreases; increases; decreases
 - E) increases; decreases; decreases; increases
- 18) Marginal cost equals
- A) Q/TVC .
 - B) $(TC-TVC)/Q$.
 - C) $\Delta Q/\Delta TVC$.
 - D) $\Delta TFC/\Delta TC$.
 - E) $\Delta TC/\Delta Q$.

- 19) The range over which average variable cost is decreasing is the same as the range over which
- A) average fixed cost is decreasing.
 - B) average product is increasing.
 - C) average product is decreasing.
 - D) marginal product is decreasing.
 - E) marginal cost is increasing.
- 20) The marginal cost (MC) curve intersects the
- A) ATC and AVC curves at their minimum points.
 - B) ATC , AVC , and AFC curves at their minimum points.
 - C) TC and TVC curves at their minimum points.
 - D) ATC and AFC curves at their minimum points.
 - E) AVC and AFC curves at their minimum points.
- 21) Total cost is \$20 at 4 units of output and \$36 at 6 units of output. Between 4 and 6 units of output, marginal cost
- A) is equal to average total cost.
 - B) is greater than average total cost.
 - C) is less than average total cost.
 - D) is equal to average variable cost.
 - E) equals average fixed cost.
- 22) If AFC is falling then MC must be
- A) rising.
 - B) above AFC .
 - C) below AFC .
 - D) falling.
 - E) none of the above.
- 23) If MC is rising then ATC must be
- A) falling.
 - B) above MC .
 - C) below MC .
 - D) rising.
 - E) none of the above.

Use the table below to answer the following question.

Table 2
Swanky's output levels

Labour (workers per day)	Plant Size (knitting machines)		
	1	2	3
1	5	11	14
2	11	16	19
3	14	19	23
4	16	21	25
5	17	22	26

- 24) Refer to Table 2, which represents Swanky's production possibilities as the firm varies the quantities of knitting machines and workers per day. If Swanky increases the number of knitting machines from 1 to 2 and increases the number of workers employed from 1 to 2, the factory experiences
- A) economies of scale.
 - B) diseconomies of scale.
 - C) constant returns to scale.
 - D) constant marginal product.
 - E) minimum efficient scale.
- 25) The long-run average cost curve is the relationship between the lowest attainable average total cost and output, when plant size is _____ and labour is _____. The long-run average cost curve is made up of the segments of individual average _____ cost curves with the lowest average _____ cost for a given output.
- A) held constant; varied; variable; variable
 - B) varied; held constant; variable; variable
 - C) varied; varied; total; total
 - D) held constant; varied; total; total
 - E) varied; varied; variable; variable
- 26) The slope of a perfectly competitive firm's demand curve is
- A) zero.
 - B) infinity.
 - C) 1.
 - D) negative.
 - E) greater than 1.

Use the table below to answer the following question.

Table 3

Quantity (units)	Price (dollars)
5	15
6	15
7	15

- 27) Refer to Table 3 which gives the demand schedule for a perfectly competitive firm. If the firm sells 6 units of output, marginal revenue is
- A) \$75.
 - B) \$105.
 - C) \$30.
 - D) \$15.
 - E) \$90.

Use the table below to answer the following question.

Table 4

Output (balloons per hour)	Total Cost (dollars per hour)
0	4.00
1	7.00
2	8.00
3	12.50
4	17.20
5	22.00
6	29.00

- 28) Refer to Table 4, which gives the total cost schedule for Brenda's Balloon Shop, a perfectly competitive firm. Brenda's total fixed cost is
- A) \$29 an hour.
 - B) \$3 an hour.
 - C) \$7 an hour.
 - D) \$4 an hour.
 - E) zero.

Use the figure below to answer the following question.

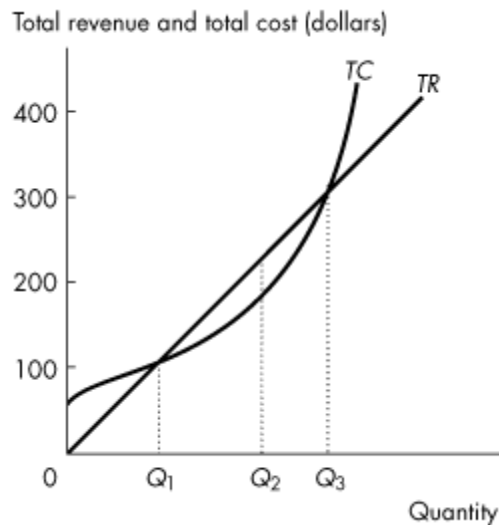


Figure 6

- 29) Refer to Figure 6, which shows a perfectly competitive firm's total revenue and total cost curves. Which one of the following statements is *false*?
- A) At an output greater than Q_3 units a day, the firm incurs an economic loss.
 - B) At an output of Q_2 units a day, the firm incurs an economic loss.
 - C) At an output less than Q_1 units a day, the firm incurs an economic loss.
 - D) At an output of Q_1 units a day, the firm makes zero economic profit.
 - E) Economic profit is the vertical distance between the total revenue curve and the total cost curve.
- 30) If a perfectly competitive firm in the short run is able to pay its variable costs and part, but not all, of its fixed costs, then it is operating in the range on its marginal cost curve that is anywhere
- A) above the break-even point.
 - B) between the shutdown and break-even points.
 - C) below the shutdown point.
 - D) below the break-even point.
 - E) above the shutdown point.

Use the table below to answer the following question.

Table 5

Price (dollars per box)	Quantity demanded (thousands of boxes per week)
3.65	500
5.20	450
6.80	400
8.40	350
10.00	300
11.60	250
13.20	200

Quantity (boxes per week)	Marginal cost (dollars per additional box)	Average variable cost (dollars per box)	Average total cost (dollars per box)
200	6.40	7.80	12.80
250	7.00	7.00	11.00
300	7.65	7.10	10.43
350	8.40	7.20	10.06
400	10.00	7.50	10.00
450	12.40	8.00	10.22
500	20.70	9.00	11.00

31) Refer to Table 5. The market is perfectly competitive and there are 1,000 firms that produce paper. The top table sets out the market demand schedule for paper.

Each producer of paper has the costs shown in the bottom table when it uses its least-cost plant size.

The market price is _____ a box, the market output is _____ boxes, and the output produced by each firm is _____ boxes. Each firm _____.

- A) \$7.00; 250,000; 250; incurs an economic loss of \$1,000 a week
- B) \$8.40; 350,000; 350; makes zero economic profit
- C) \$8.40; 350,000; 350; incurs an economic loss of \$581 a week
- D) \$7.65; 300,000; 300; makes zero economic profit
- E) \$7.65; 300,000; 300; incurs an economic loss of \$834 a week

- 32) In which one of the following situations will a perfectly competitive firm incur an economic loss?
- A) $MR > ATC$
 - B) $ATC < MC$
 - C) $ATC > MR$
 - D) $MC > AVC$
 - E) $MR > AVC$

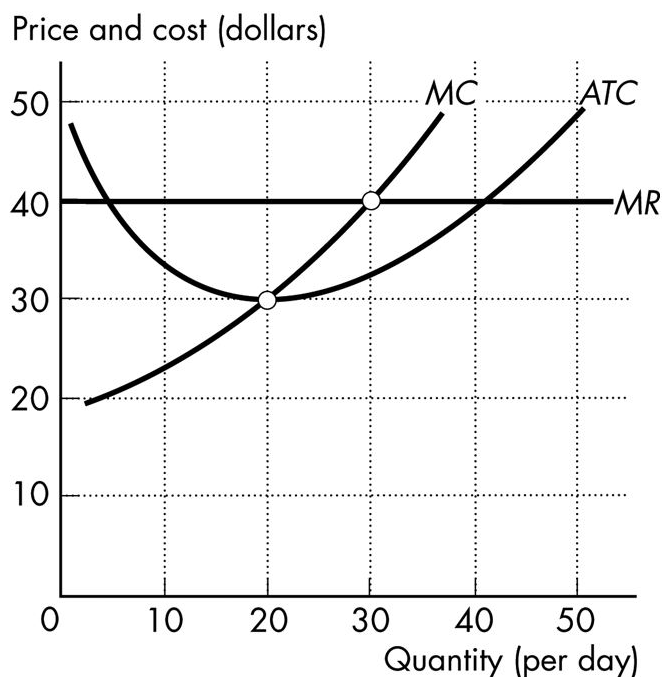


Figure 7

Use the figure above to answer the following question.

- 33) Refer to Figure 7, which shows the cost curves and the marginal revenue curve for a perfectly competitive firm. To maximize its profit, the firm produces _____ units of output and the price is _____ a unit.
- A) 30; \$40
 - B) 30; \$32.50
 - C) 20; \$30
 - D) 30; \$30
 - E) 20; \$40

- 34) Which one of the following does *not* occur in the long run when firms in a perfectly competitive market make an economic profit?
- A) Market price falls.
 - B) The market supply curve shifts rightward.
 - C) Economic profit of each firm decreases.
 - D) Firms enter the market.
 - E) Each firm increases production.
- 35) A perfectly competitive market is in short-run equilibrium with price below average total cost. Which one of the following is *not* a prediction of the long-run consequences of such a situation?
- A) The output of each existing firm will increase.
 - B) Price will rise.
 - C) Economic profit will be zero.
 - D) Market output will increase.
 - E) Firms will exit the market.
- 36) Homer's Holesome Donuts has determined that its profit-maximizing quantity is 10,000 donuts per year. Homer's total revenue from the sale of donuts is \$12,000 a year. Homer's costs are \$16,000 in annual rental payments for its five-year lease on its store and \$5,000 for ingredients. Should Homer's exit the market in the long run?
- A) No, because Homer's is covering its variable costs.
 - B) Yes, because Homer's is incurring an economic loss.
 - C) No, because all costs are variable in the long run.
 - D) Yes, because all costs are fixed in the long run.
 - E) No, because Homer's is covering its fixed costs.
- 37) A perfectly competitive market, with no external economies or diseconomies, is initially in long-run equilibrium. There is a permanent increase in demand. After adjustment to the new long-run equilibrium
- A) the remaining firms in the market may each be producing more output than previously, depending on the size of the change in demand.
 - B) the remaining firms in the market will each be producing more output than previously.
 - C) the remaining firms in the market will each be producing either the same or more output than previously.
 - D) the remaining firms in the market will each be producing less output than previously.
 - E) the remaining firms in the market will each be producing the same output as previously.
- 38) Which one of the following is *most* likely to be a natural monopoly?
- A) automotive service
 - B) printing services
 - C) electric utilities
 - D) sandwich shops
 - E) welding services

Use the figure below to answer the following question.

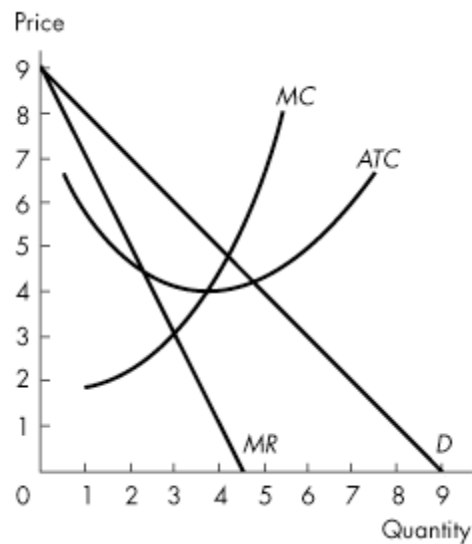


Figure 8

- 39) Refer to Figure 8. If the single-price monopoly shown in Figure 8 is maximizing profit, what is total economic profit?
- A) \$6
 - B) \$4
 - C) \$3
 - D) \$9
 - E) None of the above.
- 40) If the demand for its good or service is elastic, a monopoly's
- A) total revenue decreases when the firm lowers its price.
 - B) marginal revenue is zero.
 - C) marginal revenue is negative.
 - D) total revenue is unchanged when the firm lowers its price.
 - E) marginal revenue is positive.
- 41) A single-price monopolist
- A) maximizes economic profit by producing the quantity at which marginal revenue equals marginal cost.
 - B) maximizes economic profit by producing the quantity at which marginal revenue equals average total cost.
 - C) is not restricted by the law of demand.
 - D) can sell as much as it wants at a given price because it is the only seller.
 - E) can increase the price and the quantity sold simultaneously.

Use the figure below to answer the following question.

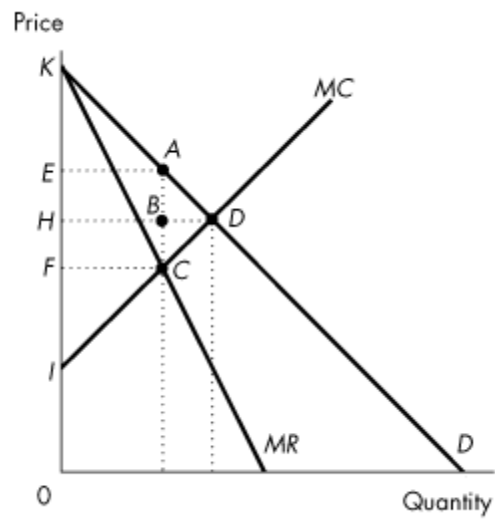


Figure 9

- 42) Refer to Figure 9. What is the redistribution of surplus from consumers to the producer with a single-price monopoly, as compared to a perfectly competitive market?
- A) ABD
 - B) $EABH - BCD$
 - C) $EABH$
 - D) ACD
 - E) $EADH$

Use the figure below to answer the following questions.

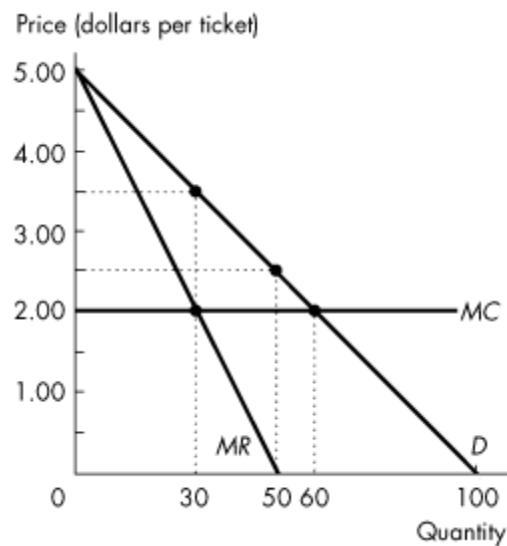


Figure 10

- 43) Refer to Figure 10. Assume this monopolist practises perfect price discrimination. This means that
- A) one price is charged to young people and a different price to older people.
 - B) the monopoly's behaviour is illegal.
 - C) a different price can be charged to each buyer.
 - D) price will rise as the number of buyers increases.
 - E) the quantity sold will be less compared to the case of no price discrimination.
- 44) Refer to Figure 10. Assume this monopolist practises perfect price discrimination. What is the lowest price charged for tickets?
- A) \$1.00
 - B) \$0
 - C) \$2.00
 - D) \$3.00
 - E) \$3.50

Use the table below to answer the following questions.

Table 6

Price (dollars)	Quantity Demanded (units)
8	0
7	1
6	2
5	3
4	4
3	5
2	6
1	7

- 45) Refer to Table 6. If a perfect price-discriminating monopoly faces the demand schedule shown in Table 6 and if marginal cost is constant at \$3, output is
- A) 2 units.
 - B) 4 units.
 - C) 3 units.
 - D) 6 units.
 - E) 5 units.
- 46) Table 6 shows the demand schedule faced by a monopoly. If the monopoly is a perfect price-discriminating monopoly the marginal revenue from the sale of the 3rd unit of output is
- A) \$2.
 - B) \$3.
 - C) \$6.
 - D) \$5.
 - E) \$4.
- 47) Donna owns the only dog grooming salon on Lonely Island. If Donna can price discriminate between dog owners who are seniors and those who are not, her economic profit will be _____ than if she does not price discriminate and the number of dog groomings will be _____ if she does not price discriminate.
- A) less; more than
 - B) less; less than
 - C) greater; the same as
 - D) greater; more than
 - E) greater; less than

- 48) Which of the following is true for a perfect price-discriminating monopoly?
- A) $P > MR$ for each unit sold.
 - B) $P = MR$ for each unit sold.
 - C) $P = MC$ for each unit sold.
 - D) $P > MC$ for each unit sold.
 - E) $P = ATC$ for each unit sold.

Use the figure below to answer the following question.

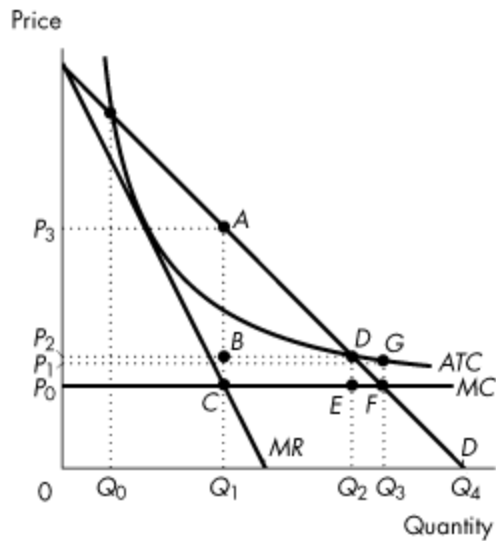


Figure 11

- 49) Consider the natural monopoly depicted in Figure 11. If a regulatory agency sets a price just sufficient for the firm to make zero economic profit, what output will it produce?
- A) Q_0
 - B) Q_4
 - C) Q_1
 - D) Q_2
 - E) Q_3

Use the information below to answer the following question.

Fact (referring to Figure 12)

Cascade Springs Inc. is a natural monopoly that bottles water from a spring high in the Rocky Mountains. The total fixed cost it incurs is \$80,000, and its marginal cost is 10 cents a bottle. The demand curve for Cascade Springs bottled water is shown in the following figure:

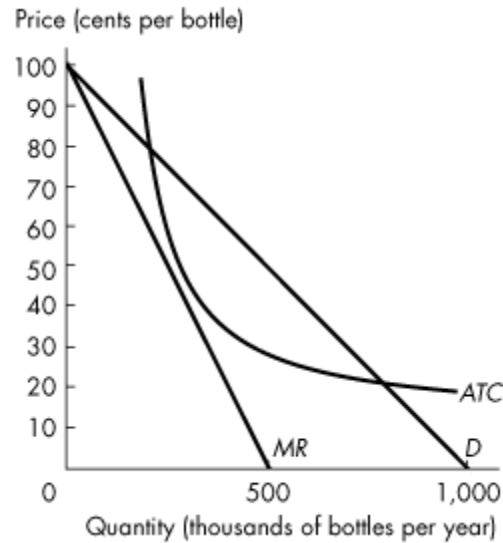


Figure 12

- 50) Refer to Figure 12. Suppose the firm is regulated by the government that imposes marginal cost pricing. The price of a bottle of water is
- A) \$0.20.
 - B) \$0.50.
 - C) \$0.30.
 - D) \$0.10.
 - E) \$0.

Answer Key

Testname: MT2MUNOV12

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

Answer Key

Testname: MT2MUNOV12

43) C

44) C

45) E

46) D

47) D

48) B

49) D

50) D