

Name: _____

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Version A

ECON 2106
Fall 2023

Final Exam

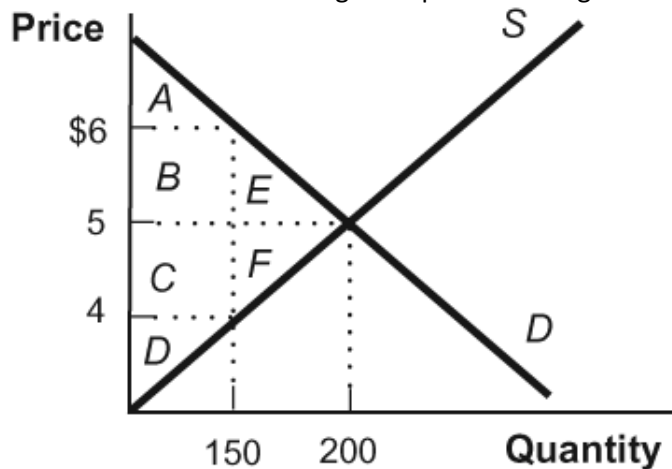
Instructions:

- The exam comprises 100 multiple choice questions, each worth the same number of points. All responses should be recorded on the bubble sheet provided.
- This exam is to be completed individually. No notes or electronic devices (except for a calculator) may be used on this exam. Reliance upon any resource other than your own knowledge will constitute cheating and compel an appropriate response pursuant to Institute policy.
- You have 170 minutes (2 hours and 50 minutes) to complete the exam.
- **Please choose the *best* answer among the multiple choices for each question.**

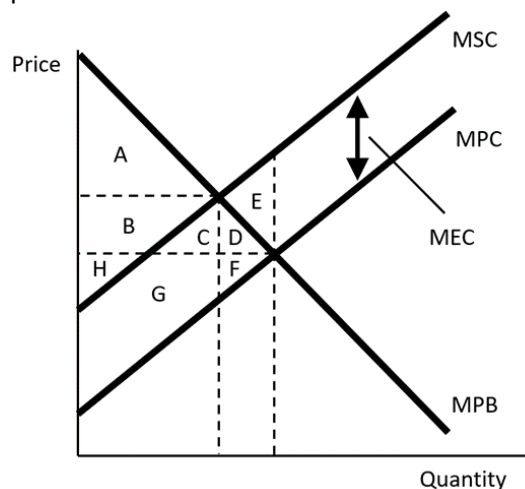
Good luck! Thanks for a great semester.

1. As the United States becomes more productive at manufacturing chemicals and pharmaceutical drugs, the opportunity cost of producing other items such as textiles _____, leading to _____ demand for foreign textiles.
 - a. decreases; decreased
 - b. decreases; increased
 - c. increases; decreased
 - d. increases; increased
2. Which of the following statements is TRUE about price discrimination?
 - a. Price-discriminating monopolists often produce more output than single-price monopolists and increase total surplus in the process.
 - b. Price discrimination leads to deadweight loss and therefore makes the market less efficient.
 - c. Price discrimination makes consumers worse off due to higher prices.
 - d. Price discrimination is illegal in the United States.

3. Which of the areas in this figure represents the government revenue resulting from a \$2 tax?



- $B + E$
 - $C + F$
 - $E + F$
 - $B + C$
 - $A + B + C + D$
4. Which types of firms are most likely to advertise?
- Monopoly firms
 - Firms with undifferentiated products
 - Firms with differentiated products
 - Perfectly competitive firms
5. The figure below depicts the market for a good associated with an externality. What area corresponds to Total External Costs at the inefficient (unregulated, private market) level of production?



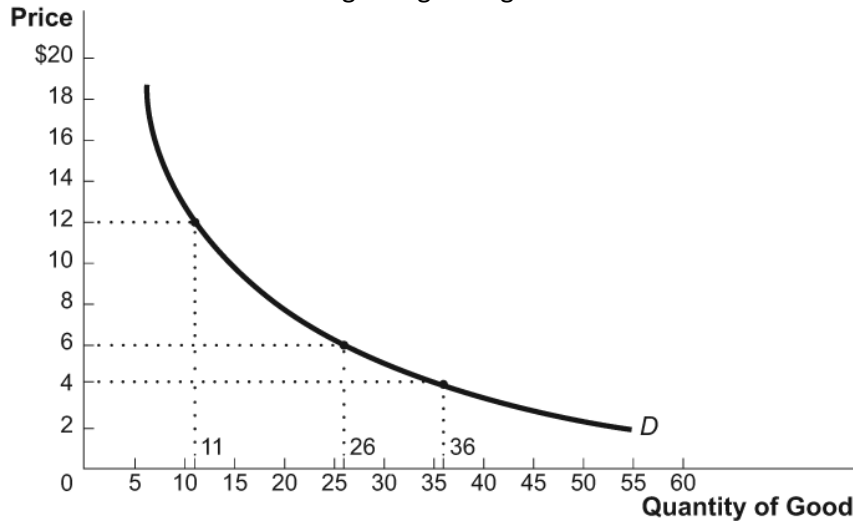
- $C + G$
- $C + G + D + F + E$
- $C + G + D + F$
- $B + C + H + G$
- $D + F$

6. Suppose that three countries are engaged in oil production. For simplicity, assume zero costs so that revenue equals profit. If the countries create a cartel and agree to mimic monopoly-like behavior, what level of output will each firm produce?

Total Market Output (units)	Market Price
600	\$90
800	80
1,000	70
1,200	60
1,400	50
1,600	40
1,800	30

- a. 400 units
 - b. 1,200 units
 - c. 200 units
 - d. 700 units
 - e. 1,000 units
7. How does price discrimination help cover fixed costs?
- a. If price discrimination lowers profits, firms will produce less and have lower fixed costs.
 - b. If price discrimination expands the size of the market, the fixed costs can be spread over a much larger output level.
 - c. Consumers with inelastic demand are less costly to serve, lowering the fixed costs of production.
 - d. Consumers with elastic demand are less costly to serve, lowering the fixed costs of production.
8. A company that produces men's electric shavers reasons that people who highly value being clean-shaven will buy a lot of replacement blades; on the other hand, people who place a low value on being clean-shaven will rarely buy replacement blades. What type of pricing strategy will maximize profits for this company?
- a. Charge the same price for the electric shaver and replacement blades
 - b. Charge a relatively low price for the electric shaver and a relatively high price for replacement blades
 - c. Charge a relatively low price for the electric shaver and offer free replacement blades
 - d. Charge a relatively high price for the electric shaver and a relatively low price for replacement blades

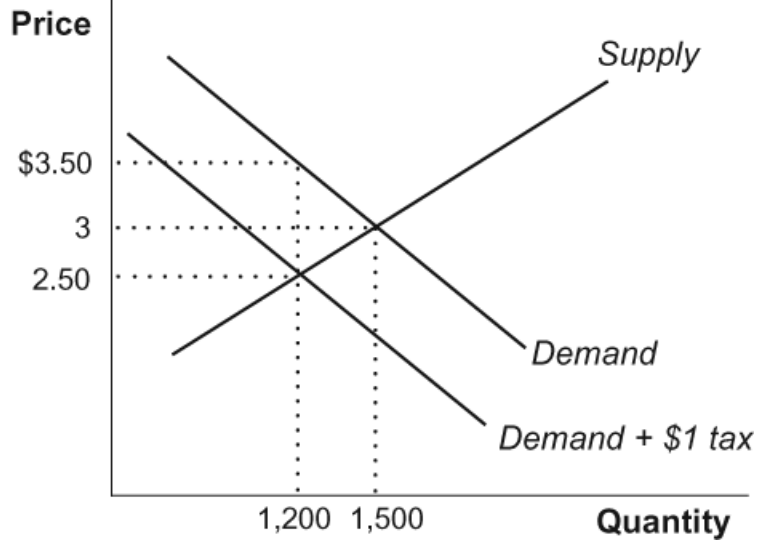
9. Which statement is TRUE regarding the figure?



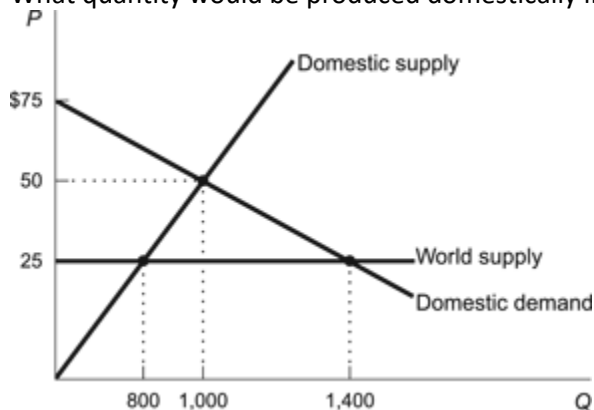
- a. At a price of \$12 per unit, consumers are willing and able to purchase between 11 and 26 units of good X.
 - b. At a price of \$6 per unit, consumers are willing and able to purchase 26 units of good X.
 - c. By spending a total of \$4, consumers can purchase 36 units of good X.
 - d. At a price of \$4 per unit, consumers are willing and able to purchase 11 units of good X.
10. The paper industry and brewery industry each emit 60 tons of particulates into the air. It costs the paper industry \$1,000 to remove 1 ton of particulates, and it costs the brewery industry \$1,400 to remove 1 ton of particulates. In an effort to reduce particulate pollution, the government gives each industry tradeable allowances worth 50 tons of particulates. We would expect that:
- a. the paper industry will buy tradeable allowances from the brewer industry at a cost greater than \$1,400 per allowance.
 - b. the paper industry will buy tradable allowances from the brewery industry at a cost between \$1,000 and \$1,400 per allowance.
 - c. the brewery industry will buy tradable allowances from the paper industry at a cost between \$1,000 and \$1,400 per allowance.
 - d. the brewery industry will buy tradable allowances from the paper industry at a cost greater than \$1,400 per allowance.
11. Facebook charges no fee to users because:
- a. Advertisers have low elasticities of supply, so as more users join Facebook, more advertisers will buy advertising space on Facebook.
 - b. Users have high elasticities of demand, so more users join Facebook, allowing Facebook to charge higher advertising fees.
 - c. Advertisers pay users to read their advertisements directly.
 - d. Users have low elasticities of demand, so more users join Facebook, allowing Facebook to charge higher advertising fees.

12. Two market failures we discussed in this class are externalities and market power (e.g., monopoly). Suppose a market for a good with a negative production externality is controlled entirely by one firm (i.e., this good is produced by a monopolist). How does production in this market compare to the efficient level of production?
- Production is too high (relative to the efficient level)
 - Production is too low (relative to the efficient level)
 - Production is equal to the efficient level
 - It is ambiguous. Production may be too high, too low, or equal to the efficient level.
13. Loyalty programs, such as frequent flyer plans, tend to:
- Make demand more elastic.
 - Decrease the monopoly power of the firm.
 - Decrease prices.
 - Increase prices.
14. A 4K television owned by a football fan is a _____, while the Thursday night NFL game she watches on Amazon Prime is a _____.
- club good; common resource
 - club good; private good
 - private good; public good
 - private good; club good
15. Informative advertising:
- Degrades the competitive process by confusing the consumer with information about prices and new products.
 - Improves the competitive process by educating consumers about prices and new products.
 - Improves the competitive process by making all products appear to be the same.
 - Degrades the competitive process by increasing the costs of firms.
16. An experiment by sociologist Duncan Watts and his coauthors showed that when consumers knew that a particular song had been downloaded by many other people, more consumers wanted to download that song as well. This research study also had another finding, which provided further evidence that music is a network good. What was that finding?
- When they ran the experiment multiple times, the most downloaded songs each time were different.
 - When they ran the experiment multiple times, the most downloaded songs each time were the same.
 - Madonna songs were always popular, and the Backstreet Boys songs were never popular.
 - Brittany Spears songs had fewer subsequent downloads when participants saw that her songs were popular than when participants saw her songs were unpopular.

17. The figure illustrates a market for gasoline with a \$1 tax imposed on the buyers. What price do buyers pay for a gallon of gasoline in this market?



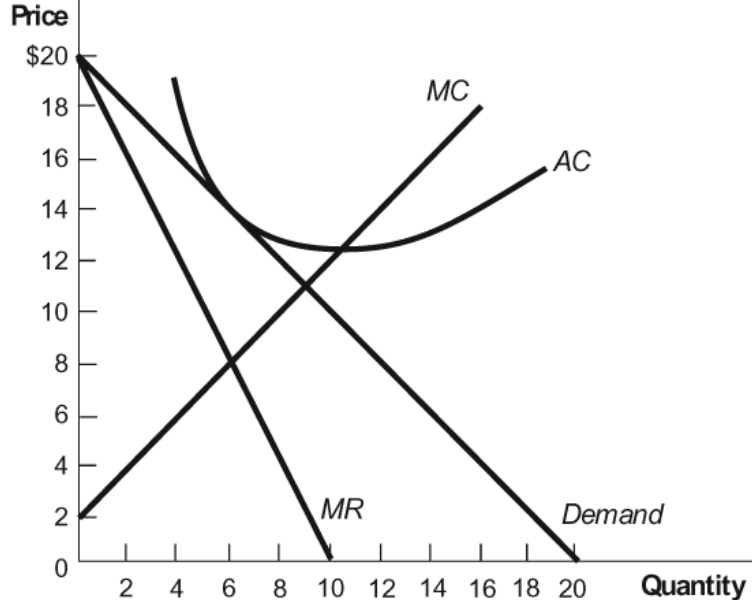
- a. \$3.00
 - b. \$3.50
 - c. \$2.50
 - d. Between \$2.50 and \$3.50, depending on the elasticity of supply
18. Tacit collusion occurs when firms:
- a. Meet and decide on their collusion tactics.
 - b. Limit competition with one another but do so without explicit agreement or communication.
 - c. Meet and play the prisoner's dilemma just once.
 - d. Cheat rather than cooperate.
19. What quantity would be produced domestically in a free trade environment?



- a. 1,000 units
- b. 1,400 units
- c. 600 units
- d. 800 units

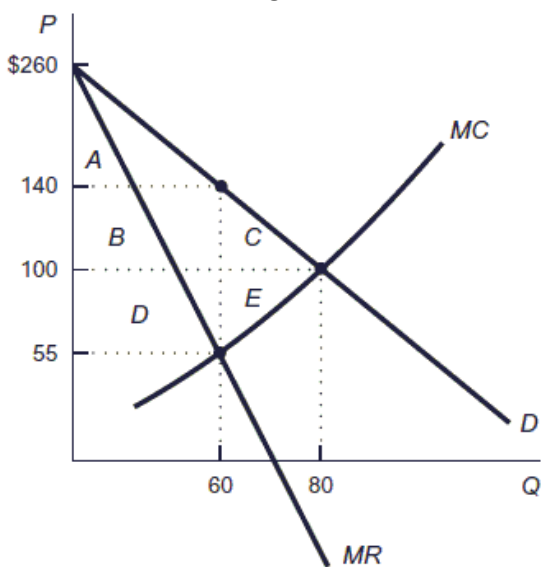
20. Antitrust authorities have a difficult time with network goods because:
- a. Profits tend to be higher in network markets, and thus firms are willing to fight harder.
 - b. When monopolies exist, there is no competition to lower prices.
 - c. They know that with network goods, a few firms will always dominate the market.
 - d. Increased competition can easily lead to corruption in network markets.
21. Each of 100 people receives a random item from a grocery store and assigns it a value between 1 (low) and 10 (high). They trade those items among themselves for items they prefer rather than those they randomly received and then assign a second value (again, 1 to 10) to the item that they end up with after the trading concludes. How would the sum of those values before trading compare with the sum after trading?
- a. The value would stay the same because no one has a comparative advantage.
 - b. After trading, value would be lower because no one can specialize.
 - c. The value would stay the same because no new goods were introduced.
 - d. After trading, value would be higher because preferences are diverse.
22. How does the price elasticity of supply for Henri Matisse paintings compare with the price elasticity of supply for Damien Hirst paintings? Note that Matisse is deceased, whereas Hirst still lives.
- a. Matisse paintings likely have a higher price elasticity of supply.
 - b. Matisse paintings likely have a lower price elasticity of supply.
 - c. Matisse paintings and Hirst paintings likely have the same price elasticity of supply.
 - d. Matisse paintings and Hirst paintings likely differ in price elasticity of supply in an indeterminate direction.

23. The monopolistically competitive firm in this diagram is in _____ equilibrium and charging a price of _____.



- short-run; \$8
 - short-run; \$11
 - long-run; \$8
 - long-run; \$14
 - long-run; \$11
24. Your company makes artistic protective cell-phone cases, which you decide to start exporting because the world price of cases is higher than the domestic equilibrium price. With trade, your _____, but the domestic _____.
- quantity supplied will fall; quantity demanded will fall
 - quantity supplied will rise; quantity demanded will fall
 - quantity demanded will rise; quantity supplied will fall
 - quantity demanded will fall; quantity supplied will rise
25. Which of the following statements is TRUE?
- Cartels are more successful when there are many substitutes for the cartel's good.
 - The high prices charged by a cartel might lead to new firms entering the industry, reducing the cartel's market power.
 - It is easier to establish a cartel for a manufactured good than for a natural resource.
 - OPEC's high oil prices encourage countries like Mexico, Great Britain, and the Netherlands to cut back on oil production.

26. Calculate the deadweight loss when this monopoly is unregulated.



- \$2,800
 - \$6,400
 - \$400
 - \$850
 - \$3,600
27. Air travel from Chicago to Los Angeles costs \$800 and takes 4 hours. A bus ticket between the cities costs \$100 and takes 104 hours. Other things being constant, the minimum value of one's time that would induce a rational individual to fly rather than drive would be:
- \$1 per hour
 - \$7 per hour
 - \$12 per hour
 - \$120 per hour
28. Restricting the importation of foreign automobiles (e.g., via a tariff) will:
- Raise the price of foreign automobiles but decrease the price of domestic automobiles.
 - Cause domestic producers to sell their automobiles at lower prices because of reduced competition.
 - Lower the price of foreign automobiles but raise the price of domestic automobiles.
 - Raise the price of both foreign and domestic automobiles.
29. If the government sets the price of all pharmaceutical drugs equal to marginal cost, which of the following statements is TRUE?
- I: Drug company profits will increase.
 II: Consumers will pay lower prices for drugs today.
 III: In the future, there will be fewer new drugs.
- I only
 - II only
 - I and II
 - II and III
 - I, II, and III

30. For each of the two statements, identify whether it is true or false.

I: If the demand curve for a good is perfectly inelastic, any commodity tax that is imposed on the market will be entirely paid by the consumer.

II: Whether buyers or sellers bear the majority of the tax burden depends upon whom the tax is initially imposed.

- a. True; False
- b. True; True
- c. False; False
- d. False; True

31. Which of the following could cause an increase in the demand for gasoline?

- a. The expectation that the price of gasoline will decrease in the future.
- b. A new technology that makes the production of gasoline significantly less expensive.
- c. An approaching hurricane that threatens a major oil refinery in Texas.
- d. The resolution of a civil war in one of the world's biggest oil-producing nations.

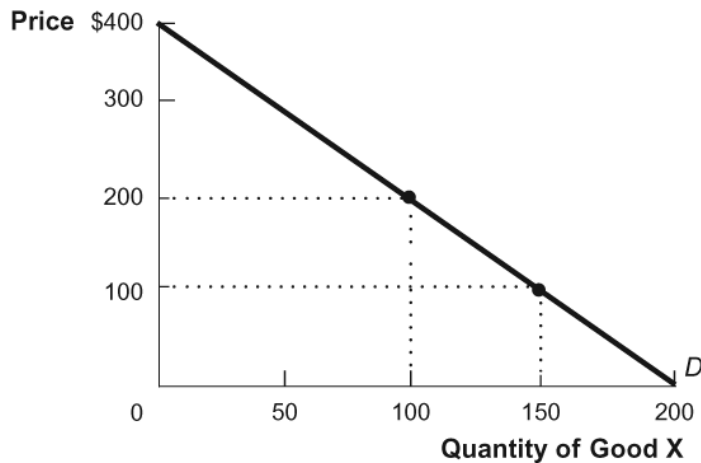
32. Prices in an oligopolistic market are likely to be:

- a. Lower than that of a monopoly market.
- b. Equal to that of a monopoly market.
- c. Equal to that of a competitive market.
- d. Lower than that of a competitive market.

33. Profits in the fast-food industry are declining, yet profits in the fast-casual dining industry are increasing. What is most likely to happen in these industries?

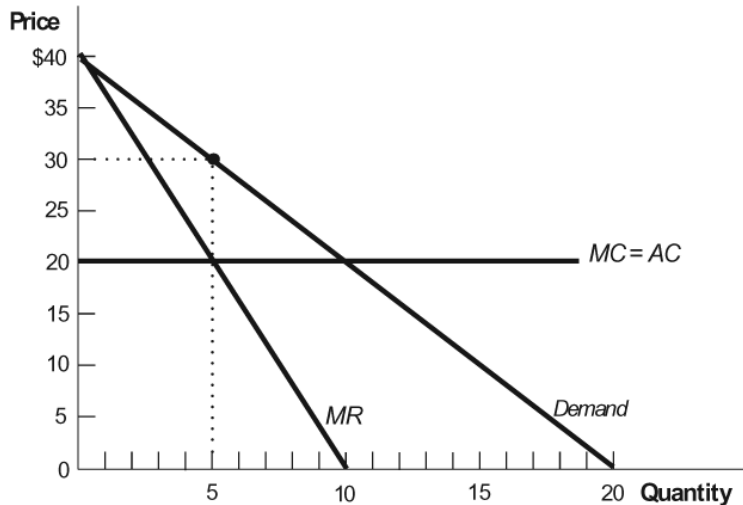
- a. New fast-food restaurants will open and fast-casual restaurants will close.
- b. The fast-food industry will be eliminated and new fast-causal concepts will be developed.
- c. Fine-dining restaurants will close, increasing profits in the restaurant industry.
- d. Some fast-food restaurants will close and new fast-casual restaurants will open.

34. As the market price falls from \$200 to \$100, consumer surplus changes by:

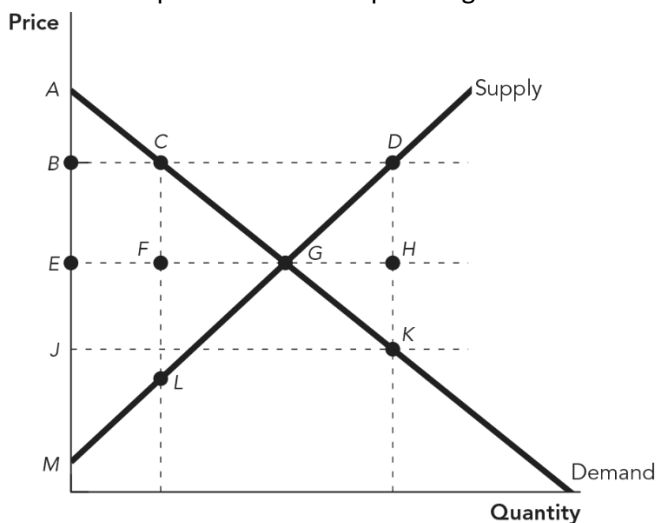


- a. \$5,000
 - b. \$10,000
 - c. \$12,500
 - d. -\$25,000
 - e. \$2,500
35. Perfect price discrimination creates:
- a. A larger deadweight loss than a non-discriminating monopoly does.
 - b. A nonzero deadweight loss that is nonetheless smaller than that created by a non-discriminating monopoly.
 - c. No deadweight loss.
 - d. The same deadweight loss as that created by a non-discriminating monopoly.
36. Rank economists' LEAST favorite to MOST favorite method of reducing the harms associated with electricity consumption.
- a. tax on electricity, command and control, tax on the pollutants generated from electricity production
 - b. tax on electricity, tax on pollutants generated from electricity production, command and control
 - c. command and control, tax on electricity, tax on the pollutants generated from electricity production
 - d. tax on the pollutants generated from electricity production, command and control, tax on electricity
37. When Asha has a comparative advantage over Jabari in welding, it means that:
- a. Asha can weld faster than Jabari can.
 - b. Jabari can weld faster than Asha can.
 - c. The opportunity cost of welding is lower for Asha than for Jabari.
 - d. The opportunity cost of welding is higher for Asha than for Jabari.

38. A patent buyout occurs when the government buys out the rights of a patent from the monopoly and destroys the patent, allowing other firms to produce the product. Suppose the government proposes a patent buyout for the product being produced by the monopolist depicted in the below figure. The government would need to pay *at least how much* for the monopolist to be willing to accept the buyout?

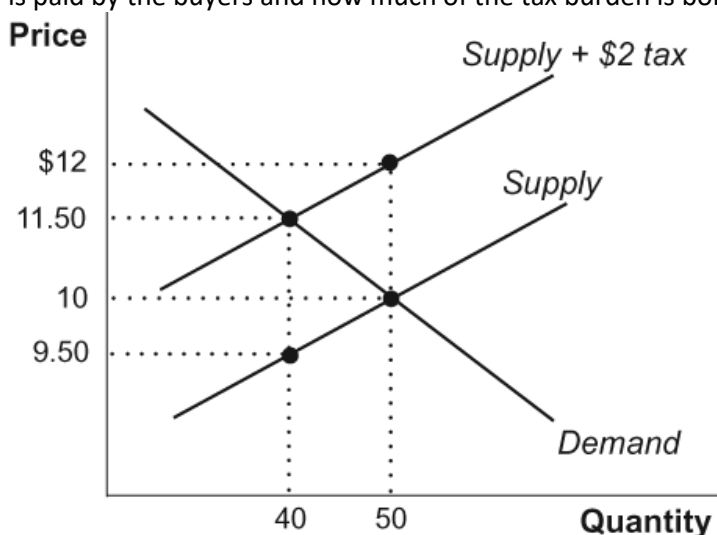


- a. \$10
 - b. \$25
 - c. \$30
 - d. \$40
 - e. \$50
39. What area represents the unexploited gains from trade when the price is set at *B*?



- a. Triangle AGM
- b. Triangle CGL
- c. Triangle AEG
- d. Triangle DGK
- e. Triangle EGM

40. Which of the following BEST explains why it is so difficult for firms to perfectly price-discriminate?
- It is very difficult to know exactly every consumer's willingness to pay.
 - It is illegal.
 - It is difficult to measure the marginal cost of producing an additional unit.
 - Perfect price discrimination often lowers the overall profits of a monopolist.
41. If the price of good Y falls from \$10 to \$8, and the quantity supplied falls from 1,000 units to 600 units, the price elasticity of supply (calculated using the midpoint formula) is:
- 2.67
 - 2.67
 - 2.25
 - 2.25
42. When there are many buyers and sellers of a good and the product sold is identical across firms:
- The demand curve for each firm's output is perfectly elastic.
 - The industry demand curve is perfectly elastic.
 - The demand curve for each firm's output is perfectly inelastic.
 - The industry demand curve is perfectly inelastic.
43. In the accompanying pizza market, with a \$2.00 tax imposed on the sellers, how much of the tax is paid by the buyers and how much of the tax burden is borne by the sellers?



- Buyers pay all of the \$2.00 tax.
- Sellers pay all of the \$2.00 tax.
- Buyers pay \$1.50 and sellers pay \$0.50 of the tax.
- Sellers pay \$1.50 and buyers pay \$0.50 of the tax.

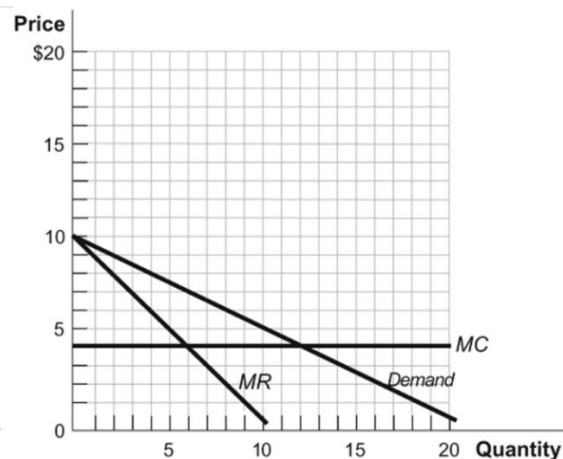
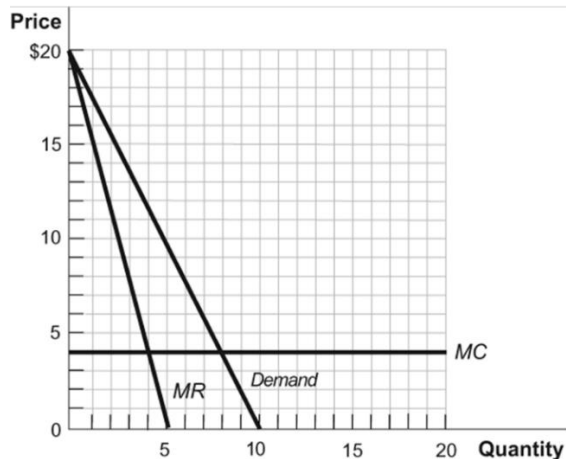
44. Price ceilings create five important effects:
- Surpluses, increases in product quality, search costs, gains from trade, and resource attrition.
 - Shortages, reductions in product quality, wasteful lines, a loss of gains from trade, and a misallocation of resources
 - Excess demand, long lines, poor service, efficiency, and arbitrage
 - Shortages, reduced time costs, low vacancy rates, bribes, and deadweight loss
45. For each of the two statements, identify whether it is true or false.
- I: In order for the gains of trade to be maximized, everyone whose willingness to pay for the good is greater than zero must receive it.
- II: Taylor Swift concerts sell out and the price of her concert tickets is very high. Therefore, you should blame Ticketmaster (the seller of tickets to her concerts) for taking advantage of the fans, not other buyers for outbidding you.
- True; False
 - True; True
 - False; False
 - False; True
46. Which of the following is (are) TRUE?
- I. A monopolistically competitive firm sets price $> MC$.
- II. A monopolistically competitive firm sets price $= MC$.
- III. A monopolistically competitive firm operates at $MC = MR$.
- I only
 - II only
 - I and III only
 - II and III only
47. To maximize profit, a firm will hire workers when the _____ in revenue from hiring an additional worker _____ the worker's wage.
- decrease; is greater than
 - decrease; is less than or equal to
 - increase; is less than or equal to
 - increase; is greater than
48. Suppose that Sandy owns a farm in North Carolina and Pat owns a farm in Iowa, and Sandy's farm is generally more productive than Pat's. If both Sandy and Pat sell their corn in the same market, Sandy should produce the output at the marginal cost that is:
- Equal to the total revenue in the market.
 - Less than the marginal cost of Pat's production.
 - Greater than the marginal cost of Pat's production.
 - Equal to the marginal cost of Pat's production.

49. The table shows a payoff matrix with two players (Jim and Dan) and two strategies (Good A and Good B). Jim's payoffs are listed first, and Dan's payoffs second.

		Dan	
		Good A	Good B
Jim	Good A	12, 12	4, 4
	Good B	3, 3	8, 8

Which of the following outcomes is(are) NOT a Nash equilibrium?

- (12, 12) and (3, 3) only
 - (12, 12) and (8, 8) only
 - (4, 4) and (3, 3) only
 - (3, 3) only
 - (12, 12), (4, 4), and (3, 3)
50. Each of these figures below represents a monopoly market. The markup of price over marginal cost for the relatively inelastic demand is _____, and the markup of price over marginal cost for the relatively elastic demand is _____.



- \$15; \$7.50
 - \$10; \$2
 - \$7.50; \$3
 - \$5; \$1
 - \$4; \$2
51. Price floors on airlines:
- Kept ticket prices much lower than unregulated ticket prices.
 - Reduced the quality of airline services (e.g., less frequent flights, peanuts instead of meals).
 - Caused airlines to compete by offering customers higher-quality services, such as better meals and wider seats.
 - Gave airlines an incentive to lower ticket prices to increase ticket sales.

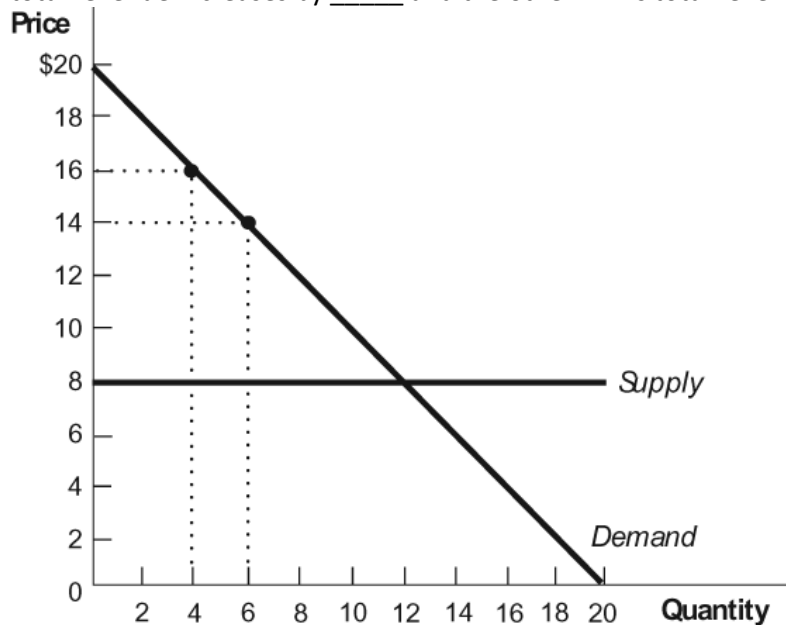
52. If a \$2 tax on apples decreases both consumer and producer surplus (and there are no externalities to be corrected by this tax), then:
- Tax revenues will be less than the amount of the lost consumer and producer surplus.
 - Tax revenues will exactly equal the amount of the lost consumer and producer surplus.
 - Tax revenues will be more than the amount of the lost consumer and producer surplus.
 - There will be no deadweight loss.

53. Which of the following is (are) TRUE?

I. The market supply curve for labor can be upward sloping or downward sloping.
 II. As wages increase, the market labor supply curve slopes upward because some people are willing to work more hours.
 III. As wages increase in the health-care industry, the market labor supply curve slopes upward because some workers from other industries decide to get jobs in health care.

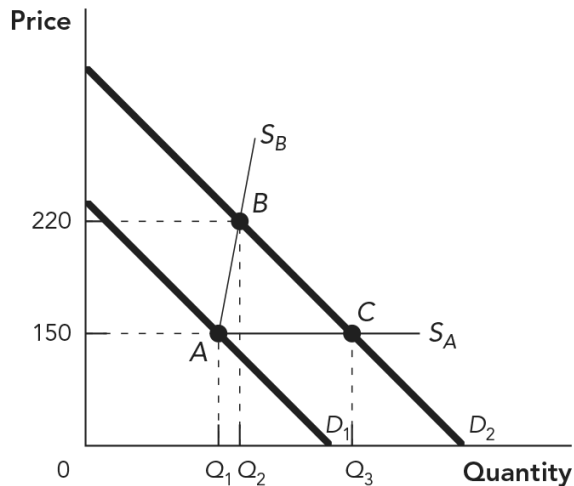
- I only
- II and III only
- II only
- I, II, and III
- III only

54. Two firms in an industry act as a cartel, with each firm agreeing to charge a price of \$16 and sell 2 units of output. If one of them cheats and produces 2 more units of output, the cheating firm's total revenue increases by _____ and the other firm's total revenue decreases by _____.



- \$28; \$14
- \$24; \$4
- \$12; \$8
- \$84; \$32

55. The figure below illustrates a housing market. There are two supply curves (S_A and S_B) with different slopes: one represents Atlanta and one represents San Francisco. In response to an increase in demand, a city like San Francisco (which has more restrictions on building new housing than nearly every other city in the U.S.) will see the equilibrium price and quantity of housing move from:

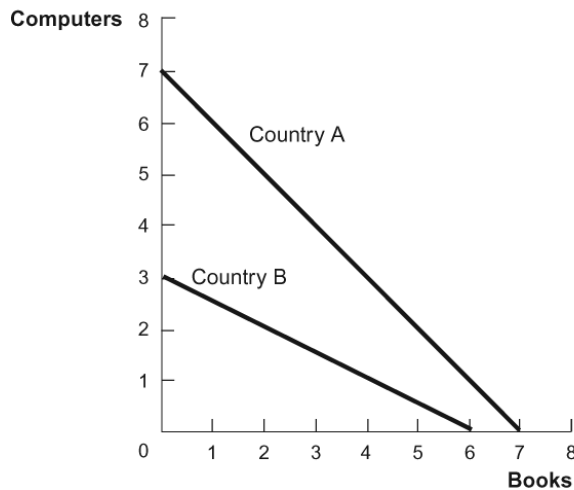


- point A to point B.
 - point B to point A.
 - point A to point C.
 - point C to point A.
 - point B to point C.
56. What is the total amount of producer surplus (per barrel of oil) earned by all four producers if the market price per barrel of oil is \$51?

Country	Minimum Willingness to Sell a Single Barrel of Oil
Country A	\$32.00
Country B	16.00
Country C	17.25
Country D	56.99

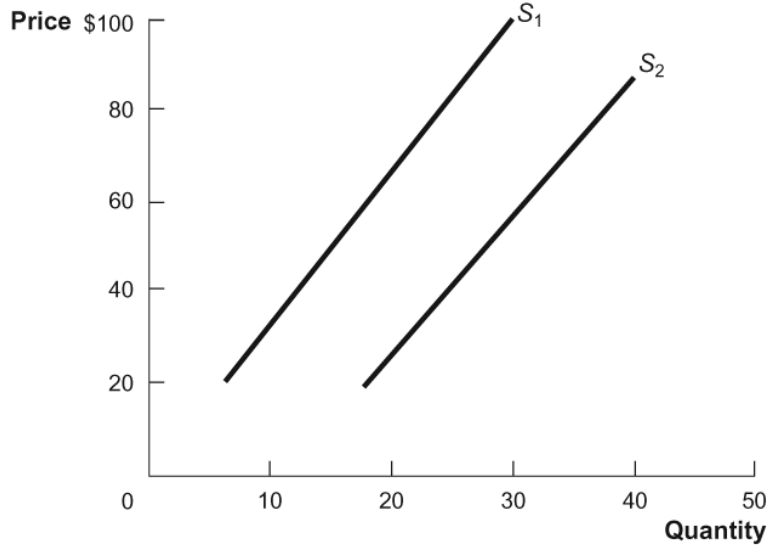
- \$81.76
 - \$65.25
 - \$93.74
 - \$87.75
57. Monopolists are people, too. This means that:
- It's good when monopolists suffer, because they are evil.
 - Gains to monopolists don't count as much as losses to consumers.
 - Gains to monopolists count just as much as losses to consumers.
 - Monopolists are corporations, not people.

58. According to the figure, if country A produces only the good for which it has a comparative advantage and then consumes the other good by exchanging computers for books, then:



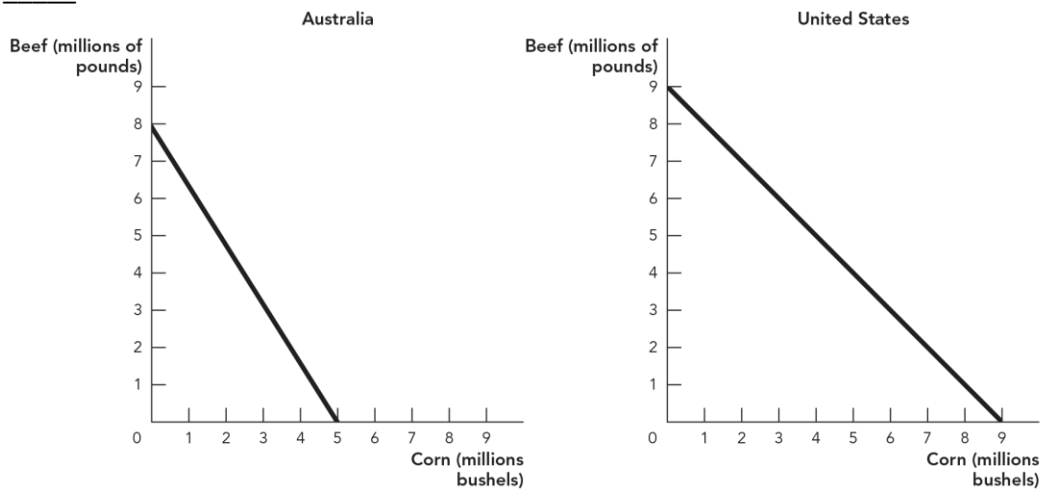
- a. Both countries will consume outside their own PPFs.
 - b. Country A will consume inside its PPF, but country B will consume outside its PPF.
 - c. Both countries will consume inside their own PPFs.
 - d. Country A will consume outside its PPF, but country B will consume inside its PPF.
59. Which of the following lists of products and services would be the most resistant to arbitrage?
- a. Gasoline, movie tickets, consumer bleach
 - b. Third-party car stereos, novels, restaurant takeout meals
 - c. Dental root canals, haircuts, cosmetic surgery
 - d. Computer software, computer hardware, tickets to sporting events
60. When a single firm can supply the entire market at a lower cost than two or more firms, the firm can be said to have which of the following characteristics?
- a. It is a natural monopoly.
 - b. It must be producing at the socially optimal level of output.
 - c. The marginal cost curve rises at an increasing rate.
 - d. It is one of two firms in the industry.
61. _____ costs should be ignored in the short-run profit-maximizing decision.
- a. Variable
 - b. Sunk costs and fixed
 - c. Only sunk
 - d. Only fixed

62. What would cause the supply curve to shift from S_1 to S_2 as shown in the diagram?



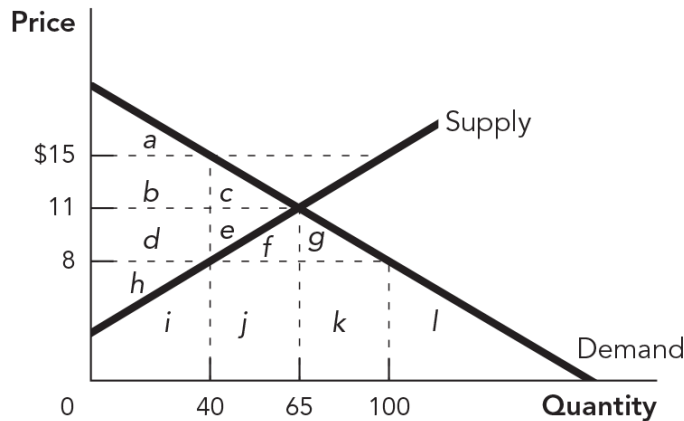
- A decrease in the wages paid to union workers who produce the output.
- An increase in the price of inputs used to produce the output.
- A decrease in the number of firms that produce the output.
- An increase in taxes on firms' output.

63. The figure above shows what Australia and the U.S. can produce using the same quantity of labor. If Australia and the United States trade to have higher consumption, the United States should specialize in the production of _____, and Australia should specialize in the production of _____.



- beef; corn
- both corn and beef; neither corn nor beef
- corn; beef
- neither corn nor beef; both corn and beef

64. The city of Cherryville sets a price ceiling of \$8 on restaurant meals in the city. Which areas reflect the lost gains from trade?



- bd*
 - dh*
 - abd*
 - ce*
 - ah*
65. Which is the MOST correct statement about the impact of rent controls?
- The short-run supply curve for apartments is inelastic, so rent controls create larger shortages in the short run than in the long run.
 - The short-run supply curve for apartments is inelastic, so rent controls create smaller shortages in the short run than in the long run.
 - The long-run supply curve for apartments is inelastic, so rent controls create larger shortages in the long run than in the short run.
 - The long-run supply curve for apartments is inelastic, so rent controls create smaller shortages in the long run than in the short run.
66. Using the table on production possibilities for the United States and Mexico, assume each country specializes in the good for which it has a comparative advantage. Which of the following answers identifies a trade price that both countries would find acceptable? (The table shows the amount of each good that the country could produce if it were to completely specialize in that good.)

	Corn (millions of tons)	Potatoes (millions of tons)
United States	50	10
Mexico	40	5

- A price between 0.125 potato for 1 corn and 8 potatoes for 1 corn.
- A price between 5 corns for 1 potato and 8 corns for 1 potato.
- A price between 0.2 potato for 1 corn and 5 corns for 1 potato.
- A price between 0.125 potato for 1 corn and 5 potatoes for 1 corn.

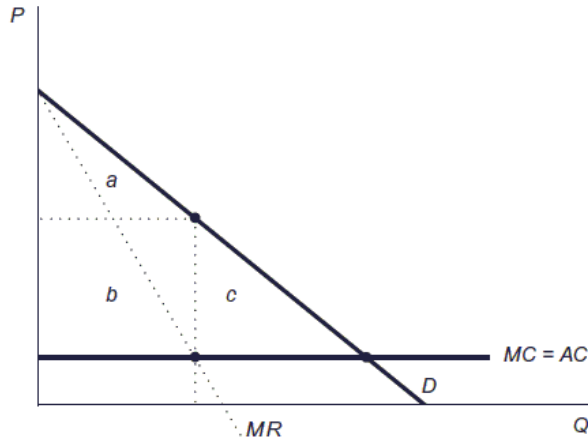
67. When demand increases, there is a _____ at the old equilibrium price, which puts _____ pressure on price until the market price reaches the new equilibrium.
- shortage; upward
 - surplus; upward
 - surplus; downward
 - shortage; downward
68. For each of the two statements, identify whether it is true or false.
- I: If a monopolist lowers price from \$10 to \$8 per unit and quantity demanded increases from 3 to 4 units, the marginal revenue from the fourth unit is \$32.
- II: To reduce the deadweight loss from a natural monopoly, governments can employ a price control.
- True; False
 - True; True
 - False; False
 - False; True
69. Which of the following is an example of the tragedy of the commons?
- Tuna in the ocean are being overharvested because it is difficult to prevent anyone from fishing for tuna.
 - Personal computers have become a commonplace appliance in many homes, causing an expedited tragedy of technology.
 - There is an increasing threat to wildlife due to habitat loss in national forests.
 - Television's popularity has become a common tragedy in our society.
70. A blockade at the border between the United States and Mexico prevents the entry of all lumber products to the United States from Mexico. This blockade will:
- Decrease the producer surplus for Mexican lumber producers.
 - Increase the consumer surplus for American lumber consumers.
 - Increase the total surplus for the American lumber market.
 - Increase the total surplus for the Mexican lumber market.
71. Monopolistic competition is a market that has:
- Few sellers, free entry, and product differentiation.
 - Many sellers, high barriers to entry, and product differentiation.
 - Many sellers, free entry, and identical products.
 - Many sellers, free entry, and product differentiation.
 - Few sellers, high barriers to entry, and product differentiation.

72. The change in profit from producing the second barrel of oil is _____, and the marginal cost from producing the seventh barrel of oil is _____.

Barrels of Oil	Marginal Revenue	Marginal Cost	Change in Profit
0	\$0	\$0	
1	100	20	
2	100	40	
3	100	60	
4	100	80	
5	100	100	
6	100	120	
7	100		-\$40

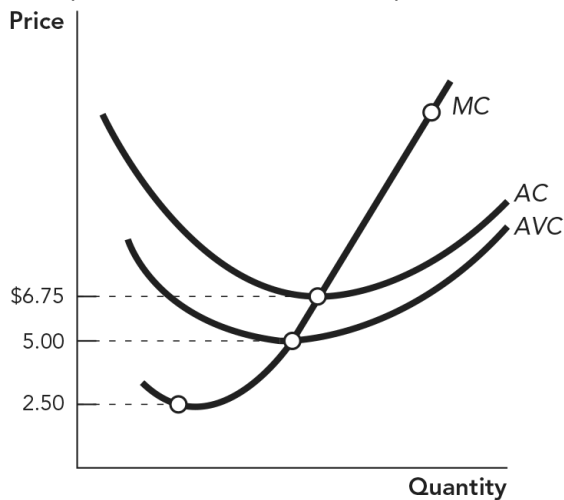
- a. \$100; \$20
 - b. \$140; \$140
 - c. \$60; \$140
 - d. \$140; \$20
73. According to the elimination principle:
- a. Below-normal profits are eliminated by entry.
 - b. Resources are always moving toward an increase in consumer welfare.
 - c. There is a uniform rate of profit above the normal level in all perfectly competitive industries.
 - d. Above-normal profits are eliminated by exit.
74. In the 1970s, fast-food restaurants refused to make special orders—there was no way to “hold the tomatoes.” When Burger King branded itself as the place where you could “have it your way” and allowed special orders, it enjoyed an advantage over other fast-food restaurants. Until other firms copied it, what was Burger King's position?
- a. Monopolistically competitive
 - b. Cartelized
 - c. Perfectly competitive
 - d. Monopolized
 - e. Duopolized

75. A monopolist who cannot price-discriminate earns profit equal to area(s) _____, and a monopolist practicing perfect price discrimination earns profit equal to area(s) _____. (Note: *a* represents the entire triangle above the horizontal dotted line and below the demand curve. *b* represents the entire rectangle defined by the y-axis, the horizontal dotted line, the vertical dotted line, and the $MC=AC$ curve.)



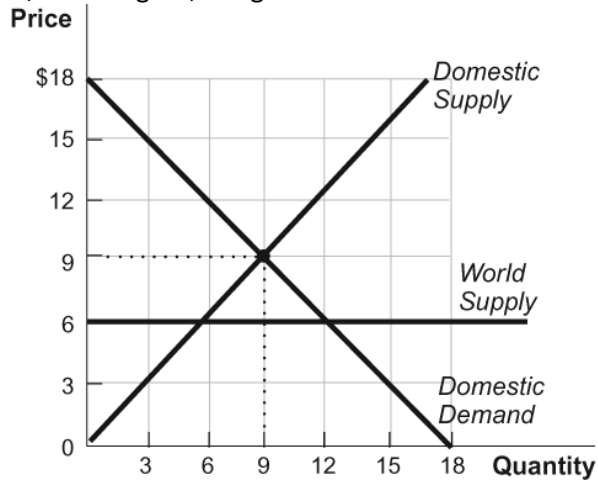
- b; ab*
 - b; bc*
 - ab; abc*
 - b; abc*
 - ab; a*
76. The *absolute value* of the price elasticity of demand for watermelons is 1.5. A 4% increase in the price will cause a:
- 3% increase in quantity demanded.
 - 3% decrease in quantity demanded.
 - 6% increase in quantity demanded.
 - 6% decrease in quantity demanded.
77. Suppose there will be global catastrophe unless we hold total carbon dioxide emissions at or below 35 million tons per year. As a result, each person on Earth is allocated 10 pounds of untradeable emissions permits per year. Why would this be an inefficient solution?
- Different people have different costs of emissions abatement.
 - Transaction costs are very high.
 - Everybody has the same cost of emissions abatement.
 - Flexibility is not desirable.
78. At a ski resort located over one hour from the nearest large town, there is only one grocery store and it charges prices more than 200% percent above the typical retail prices. In the long run, we would expect that:
- The store will continue to earn high profits even in the long run since the size of the market is small.
 - Another store will open that will charge lower prices.
 - Demand will decrease since people will not want to pay the high prices.
 - Another store will open that will charge equally high prices since competition is low.

79. If the price is \$3, should the firm produce?



- a. No, the firm should not produce and will lose money.
 - b. Yes, but the firm will lose money.
 - c. Yes, and the firm will earn a profit.
 - d. Yes, the firm will produce but not earn a profit.
80. Mail service (such as that provided by the U.S. Postal Service) is an example of what type of good?
- a. Public good
 - b. Private good
 - c. Club good
 - d. Common resource
81. The supply of nurses in country A is the same as the supply in country B, but the nurses in country A earn 90% more than the nurses in country B. What can explain this difference?
- a. Country A's economy is more productive than country B's, so the demand for nurses is higher in country A.
 - b. Although the labor supplies are equal across the two countries, the labor supply curve in country A is downward sloping.
 - c. The labor demand curve for nurses in country A is upward sloping.
 - d. Country A uses relatively more doctors than nurses to treat patients than country B.
82. To which of the following groups would a price-discriminating monopolist typically charge the lowest price?
- a. Individuals with a very inelastic demand
 - b. Individuals with a very elastic demand
 - c. Senior citizens
 - d. Vacationers
 - e. Business travelers

83. If, in this figure, the government eliminated free trade, domestic producer surplus would:



- a. Increase by \$50.00
 - b. Decrease by \$36.00
 - c. Increase by \$22.50
 - d. Increase by \$18.00
84. Compared to private goods, the free market will ____ public goods.
- a. efficiently produce
 - b. overproduce
 - c. underproduce
 - d. sometimes underproduce but most often overproduce
85. You won a free ticket to see a Rihanna concert (which has no resale value). Beyoncé is performing on the same night and is your next-best alternative activity. Tickets to see Beyoncé cost \$150. On any given day, you would be willing to pay up to \$200 to see Beyoncé. Assume there are no other costs of seeing either performer. Based on this information, what is the opportunity cost of seeing Rihanna?
- a. \$0
 - b. \$50
 - c. \$100
 - d. \$150
 - e. \$200

86. Which of the following statements is (are) TRUE?

- I. The deadweight loss from a monopoly refers to the loss in consumer surplus that is captured by the monopolist as profit.
 - II. According to theory, if the government sets a natural monopolist's price equal to marginal cost, the socially optimum quantity of output will result in the short run, assuming no shutdown.
 - III. If the government sets a natural monopolist's price equal to marginal cost, the monopolist will always earn a profit.
- a. I only
 - b. II only
 - c. I and II only
 - d. I and III only
 - e. I, II, and III

87. Cellular phone signal is an example of a good that is generally:

- a. Excludable and nonrival
- b. Nonexcludable and rival
- c. Nonexcludable and nonrival
- d. Excludable and rival

88. The table shows a payoff matrix with two players (Iraq and Iran) and two strategies. Iraq's payoffs are listed first, and Iran's payoffs second.

		Iran National Oil (profit in millions)	
		Restrict Oil Output	Expand Oil Output
Iraq National Oil (profit in millions)	Restrict Oil Output	\$78, \$78	\$60, \$89
	Expand Oil Output	\$89, \$60	\$65, \$65

The Nash equilibrium outcome is:

- a. \$78, \$78
- b. \$60, \$89
- c. \$89, \$60
- d. \$65, \$65

89. Karl values Microsoft Word at \$100 and Excel at \$40, and Adam values Word at \$20 and Excel at \$90. Assume the marginal costs of production are zero. How much more does Microsoft make if it bundles than if it sells the products individually?

- a. \$30
- b. \$20
- c. \$10
- d. \$40
- e. \$50

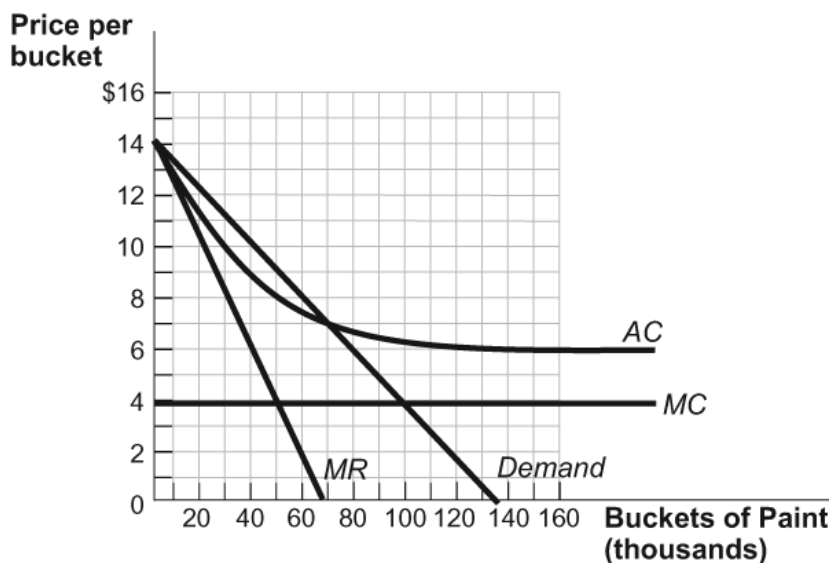
90. For each of the two statements, identify whether it is true or false.

I: A decrease in supply raises the price of a good, but it also decreases the quantity demanded, which lowers the price of a good. The net effect on price is ambiguous.

II: When the price of a good increases, the demand curve for the good will be unaffected.

- a. True; False
- b. True; True
- c. False; False
- d. False; True

91. Suppose this figure represents a monopoly market. If the fixed costs were halved, deadweight loss would:



- a. be cut in half.
- b. be reduced to zero.
- c. not change.
- d. double.

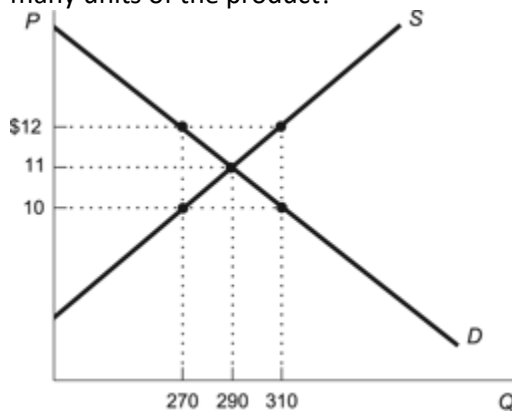
92. For each of the two statements, identify whether it is true or false.

I: A Nash equilibrium occurs when no one player in the game has an incentive to change his/her/their strategy unilaterally.

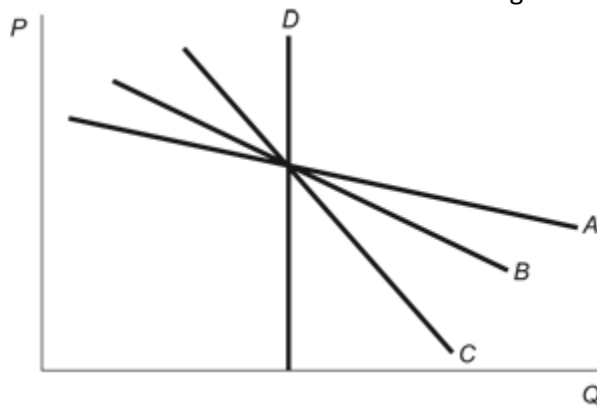
II: In the market for network goods, the best product always wins.

- a. True; False
- b. True; True
- c. False; False
- d. False; True

93. When a price ceiling of \$10 is instituted by the government, consumers are able to buy how many units of the product?

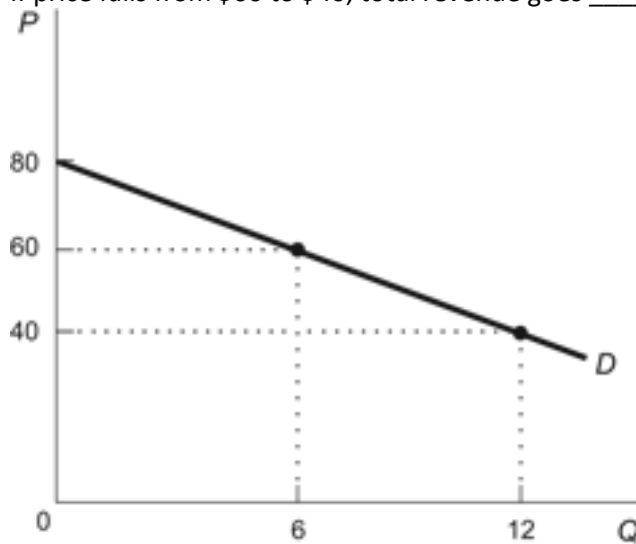


- a. 40 units
 - b. 310 units
 - c. 270 units
 - d. 290 units
94. Which of the four demand curves has the greatest responsiveness to price changes?



- a. A
 - b. B
 - c. C
 - d. D
95. Suppose France can produce 4 phones or 3 computers with 1 unit of labor, and Sweden can produce 1 phone or 2 computers with 1 unit of labor. If France can trade only with Sweden, then the theory of comparative advantage suggests that:
- a. France should specialize in producing phones and import computers from Sweden.
 - b. France should specialize in producing computers and import phones from Sweden.
 - c. France should produce both phones and computers, and import nothing from Sweden.
 - d. France should import both phones and computers from Sweden.

96. If price falls from \$60 to \$40, total revenue goes _____, so demand is _____.



- a. down by \$480; elastic
 - b. down by \$100; inelastic
 - c. up by \$120; elastic
 - d. up by \$360; inelastic
97. One benefit of trade is that it:
- a. Increases the division of knowledge because trade makes people more self-sufficient, producing more of what they consume.
 - b. Lowers productivity, leading to greater domestic employment.
 - c. Allows for increased specialization and mass-production techniques that lower per unit costs of production.
 - d. Decreases economies of scale, making production more efficient.
98. Increases in farm productivity lowered the prices of many agricultural products. Farm revenues decreased, which implies that the:
- a. Costs of production increased.
 - b. Demand for many agricultural products is elastic.
 - c. Costs of production stayed the same.
 - d. Demand for many agricultural products is inelastic.
99. Every summer, Matt travels by air to see his grandmother. Matt's maximum willingness to pay for an airline ticket is \$260, but the airline requires a minimum of only \$100 to fly him. Normally, Matt pays the airline the going market price of \$250 per ticket. If the government places a \$50 tax on each ticket, raising ticket prices to \$270 and causing Matt not to go, what is the deadweight loss created by this tax?
- a. \$10
 - b. \$150
 - c. \$160
 - d. \$250
 - e. \$260

100. Home Depot and Lowe's are in a price war on refrigerators. Refrigerators at Home Depot cost \$1,000 with a price matching guarantee of a 10% rebate on the price difference with Lowe's, whose refrigerators cost \$800. Is this price matching guarantee with a 10% rebate beneficial to the consumer?
- a. Yes, consumers will be able to buy refrigerators at either store at the Low Price of \$800, the lower posted price.
 - b. Yes, consumers will be able to buy their refrigerators at Home Depot for \$780.
 - c. No, eventually both stores will offer the price matching with rebate and post the price of refrigerators at \$1,000, the High Price.
 - d. No, both Lowe's and Home Depot will stop selling refrigerators.