

**McMaster University  
Department of Economics**

**ECON 1B03 EVENING SECTION  
Midterm Test #1  
Wednesday October 10, 2007  
VERSION 1**

Instructor: Professor H Holmes  
Duration: 2 hours; 7:00 – 9:00pm  
Total Number of Pages: 15

**INSTRUCTIONS:**

Answer all questions on the scan sheets. USE AN HB PENCIL ONLY. Make sure you carefully fill in the bubbles. YOU MUST FILL IN YOUR STUDENT NUMBER, VERSION NUMBER AND SECTION NUMBER ON THE SCAN SHEET OR YOUR GRADE WILL NOT BE RECORDED.

You may use the Casio FX calculator.

Hand in the scan sheet, your rough work paper and this test copy.

**TOTAL MARKS AVAILABLE: 60**

NAME: \_\_\_\_\_

STUDENT #: \_\_\_\_\_

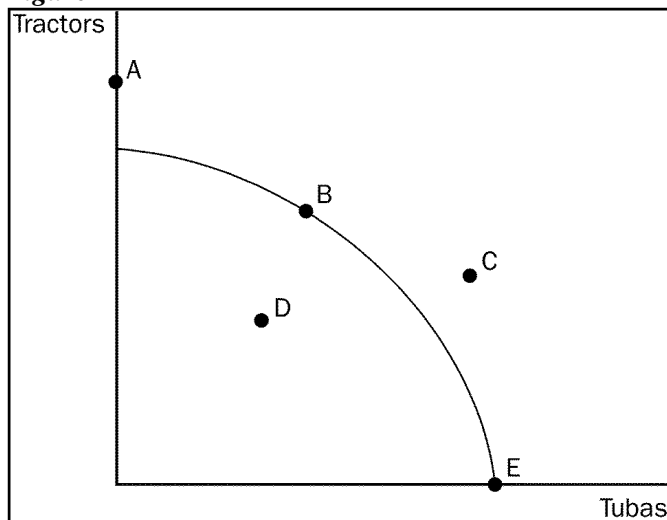
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SECTION: Circle One: C01 (9:30-10:20) C02 (12:30-1:20) EC01 (Wednesday night)

**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

- \_\_\_\_ 1. Any point on a country's production possibilities frontier represents a combination of two goods that an economy
- will never be able to produce.
  - can produce using all available resources and technology.
  - can produce using some of its resources and technology.
  - may be able to produce sometime in the future with additional resources and technology.
- \_\_\_\_ 2. Which of the following is the most accurate statement about production possibilities?
- An economy can produce only on the production possibilities frontier.
  - An economy can produce at any point inside or outside a production possibilities frontier.
  - An economy can produce at any point on or inside the production possibilities frontier, but not outside the frontier.
  - An economy can produce at any point inside the production possibilities frontier, but not on or outside the frontier.
- \_\_\_\_ 3. If an economy is producing efficiently
- there is no way to produce more of one good without producing less of the other.
  - it is possible to produce more of both goods.
  - it is possible to produce more of one good without producing less of the other.
  - it is not possible to produce more of one good at any cost.

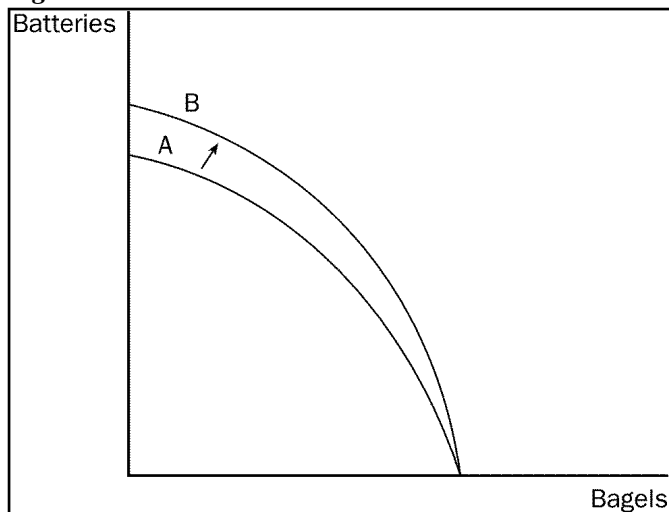
**Figure 1**

- \_\_\_\_ 4. **Refer to Figure 1.** Which point represents the maximum possible production of tubas?
- A
  - B
  - D
  - E

5. Refer to Figure 1. Which point or points are efficient?

- a. B, E
- b. A, B, E
- c. D
- d. C

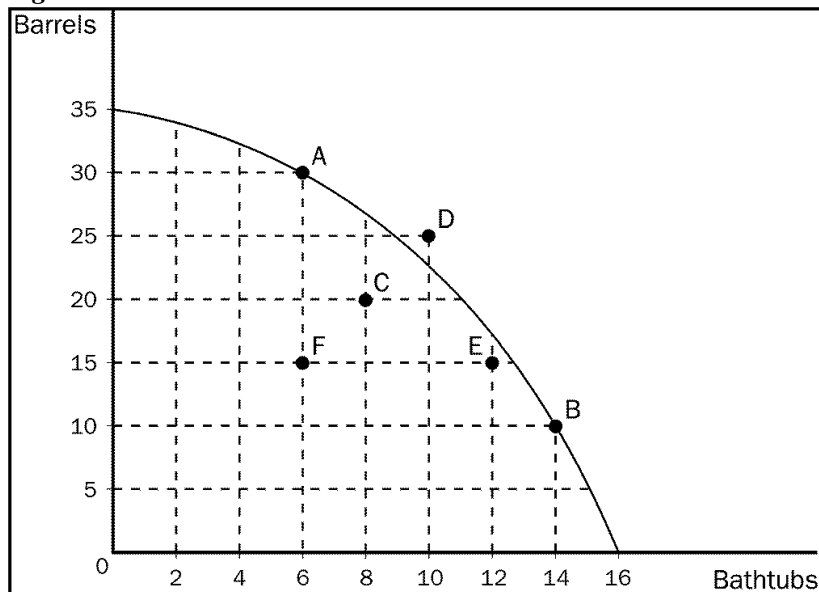
**Figure 2**



6. Refer to Figure 2. The shift of the frontier from A to B was most likely caused by which of the following?

- a. technological improvement in the production of batteries
- b. more labour available in the economy
- c. a general technological breakthrough
- d. more capital available in the economy

**Figure 3**



7. **Refer to Figure 3.** An efficient combination of bathtubs and barrels would be
- 30 barrels and 6 bathtubs. **on the PPF**
  - 20 barrels and 8 bathtubs.
  - 25 barrels and 12 bathtubs.
  - 15 barrels and 12 bathtubs.
8. **Refer to Figure 3.** If this economy puts all of its resources into the production of bathtubs it could produce
- 20 barrels and 12 bathtubs.
  - 35 barrels and no bathtubs.
  - no barrels and 16 bathtubs.
  - This economy would not choose to put all of its resources into the production of one good.
9. Evaluating a positive statement involves
- evaluating values as well as facts.
  - examining evidence. **No judgments**
  - our views on ethics and religion.
  - All of the above are correct.
10. Suppose there are two countries, Freedonia and Sylvania, which have identical amounts of resources, identical technologies, and identical populations. Both produce two types of goods, consumer goods and capital goods, and they both always operate on their production possibilities frontiers. The only difference is that this year Freedonia chooses to produce relatively more consumer goods than Sylvania. As a result,
- Freedonia will have a higher living standard this year but will grow slower than Sylvania. **Less capital goods means less future resource s to use in production so growth will be slower.**
  - Freedonia will have a higher living standard this year and will grow faster than Sylvania.
  - Sylvania will have a higher living standard this year but will grow slower than Freedonia.
  - Sylvania will have a higher living standard this year and will grow faster than Freedonia.

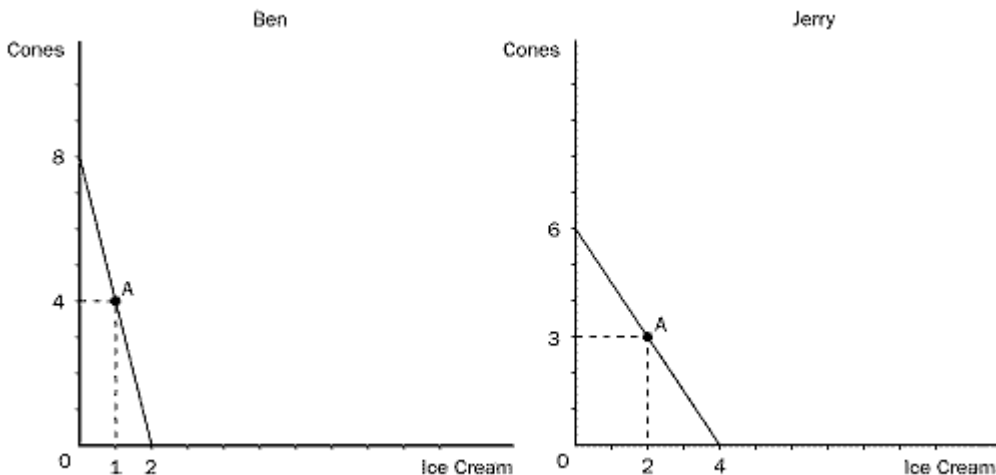
**Table 1**

	Labor Hours Needed to Make 1 Pound of:		Pounds produced in 40 hours:	
	Meat	Potatoes	Meat	Potatoes
Farmer	8	2	5	20
Rancher	4	5	10	8

11. **Refer to Table 1.** The opportunity cost of 1 pound of potatoes for the farmer is
- 8 hours of labour.
  - 2 hours of labour.
  - 4 pounds of meat.
  - $\frac{1}{4}$  pound of meat. **To get 20 potatoes, give up 5 meat so to get 1 potato give up  $\frac{5}{20}$  meat**
12. **Refer to Table 1.** The opportunity cost of 1 pound of potatoes for the rancher is
- 4 hours of labour.
  - 5 hours of labour.
  - $\frac{5}{4}$  pounds of meat. **To get 8 potatoes, give up 10 meat so to get 1 potato give up  $\frac{10}{8}$  meat**

- d.  $4/5$  pound of meat.

**Figure 4**

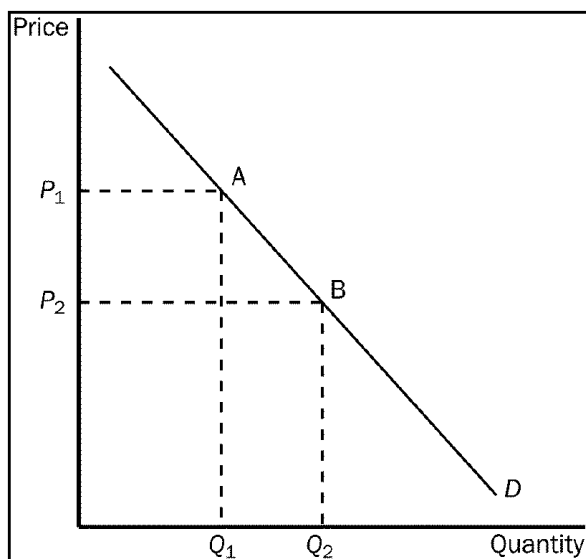


13. **Refer to Figure 4.** For Jerry the opportunity cost of 1 pound of ice cream is
- 1 pound of cones.
  - $3/2$  pounds of cones. To get 4 ice cream, give up 6 cones, so to get 1 ice cream, give up  $6/4$  cones
  - $1/3$  pounds of cones.
  - 2 pounds of cones.
14. **Refer to Figure 4.** Ben has a comparative advantage in
- ice cream and Jerry has an absolute advantage in both goods.
  - cones and Jerry has an absolute advantage in ice cream. Lower opp cost of cones but Jerry can produce more ice cream.
  - ice cream and Jerry has an absolute advantage in neither good.
  - ice cream and Jerry has an absolute advantage in cones.
15. **Refer to Figure 4.** Ben has an absolute advantage in
- cones and Jerry has a comparative advantage in ice cream. Same logic as #14
  - both goods and Jerry has a comparative advantage in cones.
  - ice cream and Jerry has a comparative advantage in cones.
  - neither good and Jerry has a comparative advantage in ice cream.
16. **Refer to Figure 4.** Ben and Jerry were currently both producing at point A on their production possibilities frontier and then Ben decided he would be willing to trade 4 pounds of cones to get 2 pounds of ice cream from Jerry. If both decided to specialize in what they had a comparative advantage in and trade, the gains from trade would be
- 1 pound of cones for Ben and 1 pound of ice cream for Jerry.
  - 1 pound of ice cream for Ben and 1 pound of cones for Jerry. Ben produces 8 cones, Jerry produces 4 ice cream. Ben gives Jerry 4 cones and gets 2 ice cream— he's up 1 ice cream. Jerry produces 4 ice cream, gives Ben 2 and gets 4 cones – he's up 1 cone.

- c. 2 pounds of ice cream for Ben and 2 pounds of cones for Jerry.
- d. 2 pounds of ice cream for Ben and 1 pound of cones for Jerry.

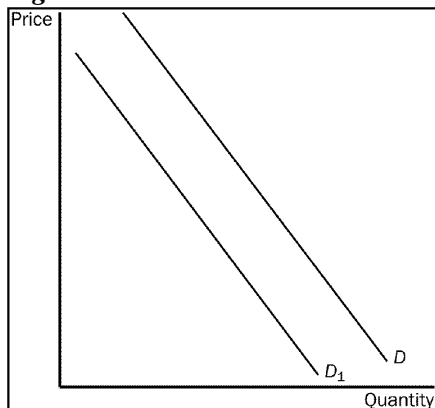
- \_\_\_\_\_ 17. Each of the following are determinants of demand EXCEPT
- a. tastes.
  - b. technology. **supply**
  - c. income.
  - d. the price of related goods.
- \_\_\_\_\_ 18. Currently you purchase 6 packages of hot dogs a month. You will be graduating in December and will start your new job January 2nd. You have no plans to purchase hot dogs in January. For you, hot dogs are
- a. a "college-only" good.
  - b. a normal good.
  - c. an inferior good. **Your income will increase**
  - d. a consumer good.
- \_\_\_\_\_ 19. Suppose that a decrease in the price of X results in less of good Y sold. This would mean that X and Y are
- a. complementary goods.
  - b. normal goods.
  - c. inferior goods.
  - d. substitute goods. **Think Coke and Pepsi.**
- \_\_\_\_\_ 20. An example of substitute goods would be
- a. butter and margarine.
  - b. tennis balls and tennis rackets.
  - c. televisions and tractors.
  - d. peanut butter and jelly.

**Figure 5**



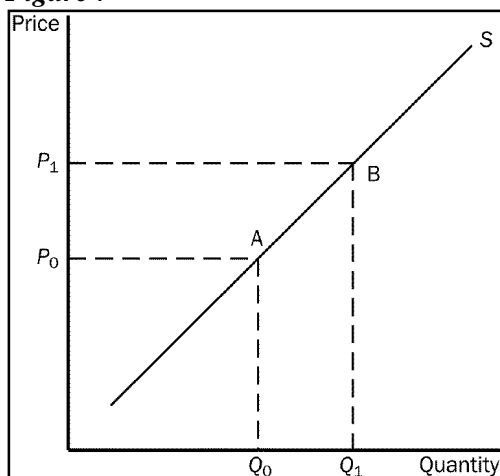
21. **Refer to Figure 5.** The movement from point A to point B on the graph shows
- a decrease in demand.
  - an increase in demand.
  - a decrease in quantity demanded.
  - d.** an increase in quantity demanded.
22. A very hot summer in Atlanta will cause the demand for lemonade to
- shift to the left.
  - b.** shift to the right.
  - remain stable but we would move down the curve.
  - remain stable but we would move up the curve.

**Figure 6**



23. **Refer to Figure 6.** The movement from  $D$  to  $D_1$  could be caused by
- an increase in price.
  - a decrease in the price of a complement.
  - an increase in technology.
  - d.** a decrease in the price of a substitute.

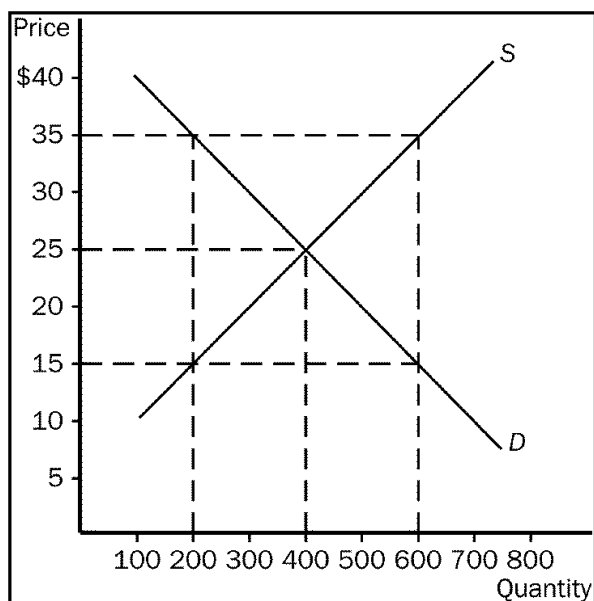
24. Which of the following describes a correct possible chain of events for a seller?
- Technology improves, profit falls, the supply curve shifts left.
  - An input price falls, profit increases, the supply curve shifts right.
  - An input price rises, profit falls, the supply curve shifts right.
  - An input price rises, profit rises, the supply curve shifts left.
25. Lead is an important input in the production of crystal. If the price of lead decreases, all else equal, we would expect the supply of
- crystal to be unaffected.
  - crystal to decrease.
  - crystal to increase. Cost of production decreases so supply shifts right.
  - lead to increase.

**Figure 7**

26. Refer to Figure 7. The movement from point A to point B on the graph would be caused by
- a decrease in the price of the good.
  - an increase in the price of the good.
  - an increase in technology.
  - a decrease in input prices.

**Figure 8**



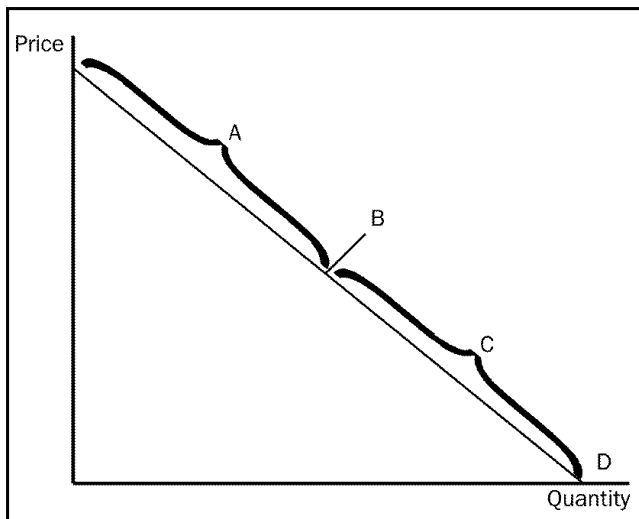


27. Refer to Figure 8. Equilibrium price and quantity are
- \$35, 200.
  - \$35, 600.
  - \$25, 400.**
  - \$15, 200.
28. Refer to Figure 8. At a price of \$15,
- there would be a shortage of 400 units.**
  - there would be a surplus of 400 units.
  - there would be a shortage of 200 units.
  - the market would be in equilibrium.
29. Suppose roses are currently selling for \$40.00 per dozen. The equilibrium price of roses is \$30.00 per dozen. We would expect a
- shortage to exist and the market price of roses to increase.
  - shortage to exist and the market price of roses to decrease.
  - surplus to exist and the market price of roses to increase.
  - surplus to exist and the market price of roses to decrease.**
30. Which chain of events occurs in the correct order? **Draw them and see what happens.**
- Quantity supplied increases, price increases, demand increases.
  - Price increases, demand increases, quantity supplied increases.
  - Demand increases, price increases, quantity supplied increases.**
  - Any of the above could be correct.
31. An early frost in the vineyards of Napa Valley would cause
- an increase in the demand for wine, increasing price.
  - an increase in the supply of wine, decreasing price.
  - a decrease in the demand for wine, decreasing price.
  - a decrease in the supply of wine, increasing price. Frost hurts grapes and reduces amount**

of grapes and increases price of grapes so you get less wine supplied and P of wine increases.

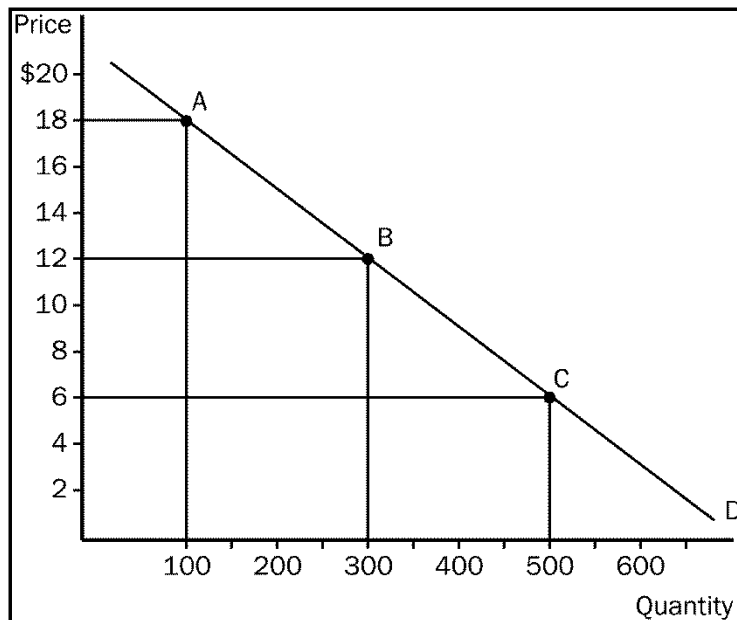
- \_\_\_\_\_ 32. Which of the following would result in an increase in equilibrium price and an ambiguous change in equilibrium quantity?
- an increase in supply and demand
  - an increase in supply and a decrease in demand
  - a decrease in supply and an increase in demand **Other options depend on relative magnitudes of the shifts.**
  - a decrease in supply and demand
- \_\_\_\_\_ 33. The price elasticity of demand measures
- a buyer's responsiveness to a change in the price of a good.
  - the increase in demand as additional buyers enter the market.
  - how much more of a good consumers will demand when incomes rise.
  - the increase in demand that will occur from a change in one of the nonprice determinants of demand.
- \_\_\_\_\_ 34. If a good is a luxury, demand for the good would tend to be
- inelastic.
  - elastic.**
  - unit elastic.
  - horizontal.
- \_\_\_\_\_ 35. Suppose the price of Twinkies is reduced from \$1.45 to \$1.25 and, as a result, the quantity of Twinkies demanded increases from 2,000 to 2,200. Using the midpoint method, the price elasticity of demand for Twinkies in the given price range is
- 2.00.**
  - 1.55.
  - 1.00.
  - .64.
- \_\_\_\_\_ 36. If the price elasticity of demand for a good is 4.0, then a 10 percent increase in price would result in a
- 4.0 percent decrease in the quantity demanded.
  - 10 percent decrease in the quantity demanded.
  - 40 percent decrease in the quantity demanded.  $4 = \% \text{change in } Q_d / 10$  so  $\% \text{change in } Q_d = 40$ , a decrease.**
  - 400 percent decrease in the quantity demanded.

**Figure 9**



37. **Refer to Figure 9.** The point on the demand curve labeled B represents the
- a. elastic section of the demand curve.
  - b. inelastic section of the demand curve.
  - c. unit elastic section of the demand curve. **At midpoint,  $E = 1$**
  - d. perfectly elastic section of the demand curve.

**CONTINUED ON NEXT PAGE**  
**Figure 10**



38. **Refer to Figure 10.** If the price decreased from \$18 to \$6, what would happen to total revenue?
- Total revenue would increase by \$1200 and demand would be elastic. **TR at A = 1800. TR at C=3000. Since TR increased when P decreased, demand must be elastic.**
  - Total revenue would increase by \$800 and demand would be elastic.
  - Total revenue would decrease by \$1200 and demand would be inelastic.
  - Total revenue would decrease by \$800 and demand would be inelastic.
39. The flatter the demand curve through a given point, the
- greater the price elasticity of demand. **Right out of lecture notes.**
  - smaller the price elasticity of demand.
  - closer the price elasticity of demand will be to the slope of the curve.
  - more equal the price elasticity of demand will be to the slope of the curve.
40. A perfectly elastic demand curve will be
- vertical.
  - horizontal.**
  - downward sloping to the right.
  - upward sloping to the right.
41. An increase in price causes an increase in total revenue when
- demand is elastic.
  - demand is inelastic.**
  - demand is unit elastic.
  - All of the above are possible.

- \_\_\_\_\_ 42. When demand is elastic the price elasticity is
- greater than 1, and price and total revenue will move in opposite directions.
  - less than 1, and price and total revenue will move in the same direction.
  - less than 1, and price and total revenue will move in opposite directions.
  - greater than 1, and price and total revenue will move in the same direction.
- \_\_\_\_\_ 43. Assume that a 4 percent increase in income results in a 2 percent increase in the quantity demanded of a good. The income elasticity of demand for the good is
- negative and therefore the good is an inferior good.
  - negative and therefore the good is a normal good.
  - positive and therefore the good is a normal good.
  - positive and therefore the good is an inferior good.

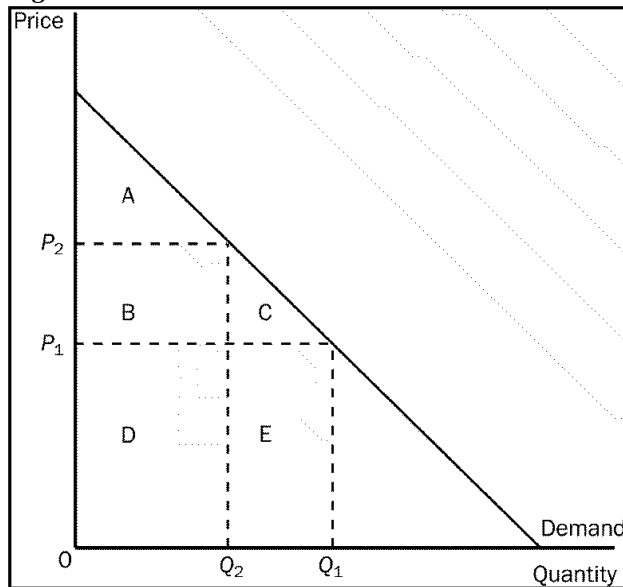
**Table 2**

Income	Quantity of Good X Purchased	Quantity of Good Y Purchased
\$30,000 <b>I1</b>	2	20 <b>Q1</b>
\$40,000 <b>I2</b>	5	10 <b>Q2</b>

- \_\_\_\_\_ 44. **Refer to Table 2.** Using the midpoint method, what is the income elasticity of good Y?
- 3.33
  - 2.33
  - 1.33
  - 2.33
- \_\_\_\_\_ 45. **Refer to Table 2.** Good Y is
- not related to income.
  - an inferior good.
  - price inelastic.
  - a normal good.
- \_\_\_\_\_ 46. If the cross-price elasticity of two goods is negative, then those two goods are
- substitutes.
  - complements. **Think coffee and sugar...**
  - normal goods.
  - inferior goods.
- \_\_\_\_\_ 47. The main determinant of the price elasticity of supply is
- time. **Right out of lecture notes**
  - the definition of the market.
  - the number of close substitutes.
  - luxuries vs. necessities.

48. Belva is willing to pay \$65.00 for a pair of shoes for a formal dance. She finds a pair at her favorite outlet shoe store for \$48.00. Belva's consumer surplus is
- \$17.
  - \$31.
  - \$48.
  - \$65.

**Figure 11**



49. **Refer to Figure 11.** At the price of  $P_2$ , consumer surplus is
- A **Area below demand above price.**
  - B
  - $A + B$
  - $A + B + C$
50. **Refer to Figure 11.** When the price rises from  $P_1$  to  $P_2$ , which would NOT be true?
- The buyers who still buy the good are worse off because they now pay more.
  - Some buyers leave the market because they are not willing to buy the good at the higher price.
  - The total value of what is now purchased by buyers is actually higher. **Value shown by the demand curve and it doesn't change.**
  - Consumer surplus in the market falls.
51. The decisions of buyers and sellers that affect people who are not participants in the market create
- market power.
  - externalities.**
  - profiteering.
  - market equilibrium.

52. A technological advance in the production of computers will **Draw the increase in supply and see what happens to both markets.**
- increase consumer surplus in the market for computers and decrease producer surplus in the market for laser printers.
  - increase consumer surplus in the market for computers and increase producer surplus in the market for laser printers. **Lowers P and increases Q in computer market, increases D for laser printers.**
  - decrease consumer surplus in the market for computers but increase producer surplus in the market for laser printers.
  - decrease consumer surplus in the market for computers and decrease producer surplus in the market for laser printers.

**QUESTIONS # 53 – #60 ON THE FOLLOWING PAGE REFER TO THE ORIGINAL INFORMATION IN QUESTION #53.**

53. Demand and supply for ink cartridges are given as  $Q_d = 100 - 2P$  and  $Q_s = 10 + P$ . Equilibrium price and quantity are

$$\begin{aligned} 100 - 2P &= 10 + P \\ 90 &= 3P \\ P &= 30, Q=40 \end{aligned}$$

- |             |              |
|-------------|--------------|
| a. \$50; 50 | c. \$30; 40  |
| b. \$40; 30 | d. \$25; 35. |

54. If  $P = \$20$ , there would be a

$$\text{At } P=20, Q_d = 60, Q_s=30$$

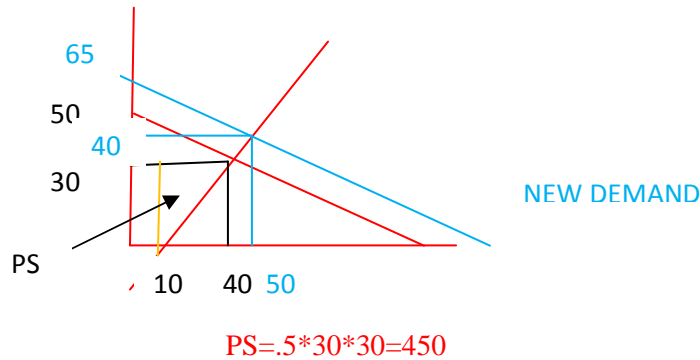
- |                                   |                                  |
|-----------------------------------|----------------------------------|
| a. surplus equal to 30 cartridges | c. shortage of 60 cartridges     |
| b. shortage of 30 cartridges      | d. new equilibrium at $Q = 30$ . |

55. A change in consumers' tastes leads to a new demand given by  $Q_d' = 130 - 2P$ . This results in a new equilibrium price and quantity of

$$\begin{aligned} 130 - 2P &= 10 + P \\ 120 &= 3P \\ P &= 40, Q=50 \end{aligned}$$

- |             |                    |
|-------------|--------------------|
| a. \$40; 50 | c. \$60; 30        |
| b. \$50; 40 | d. \$46.67; 56.67. |

56. Referring to the original demand and supply, producer surplus equals



- a. \$600
- b. \$750
- c. \$450
- d. \$800.

57. After the change in demand, consumer surplus

Original CS =  $.5 * 20 * 40 = 400$

After, CS =  $.5 * 25 * 50 = 625$  an increase of 225

- a. increased by \$400
- b. increased by \$625
- c. increased by \$550
- d. increased by \$225.

58. Which is more elastic?

- a. Demand it's flatter
- b. supply
- c. both have the same elasticity
- d. insufficient information to determine.

59. The new equilibrium, using the new equation for demand, is the result of an

- a. increase in demand and an increase in supply
- b. increase in demand and an increase in quantity supplied
- c. increase in quantity demanded and an increase in supply
- d. increase in quantity demanded and an increase in quantity supplied.

60. Referring to the original demand equation, at a price of \$25, a seller should

- a. increase price to increase total revenue
- b. decrease price to increase total revenue
- c. do nothing since total revenue is maximized At  $P=25$ , at midpoint of D where TR is max ( $E=1$ )
- d. buy a guard dog.

61. Who holds the NFL record as most game-winning quarterback?

- a. John Elway
- b. Brett Favre
- c. Dan Marino
- d. Troy Aikman