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Econ 1b03 Test 2, Solutions

Instructions:

Please print your name (last name, first name, middle initial) and student number in the space provided at the top of each page.

The test consists of 25 multiple choice (MC) questions and 1 short answer question. There is a total of 15 marks on the test. You have 50 minutes to complete the test. Answer all questions.

Only one answer is correct for the MC questions. Points are awarded if only the correct answer is circled. Answer the short answer question in the space provided below.

No material, other than University approved calculators, is allowed.

Multiple choice questions (1/2 marks each, total 12.5 marks):

1. The only producer of chocolate bunnies in the world, Choco's Bunny Company, recently expanded its production capacity from 1,000 bunnies per day to 2,000 per day. Supposing the price elasticity of demand for Bunnies is 3.33, if you use the midpoint method of estimating the price elasticity of demand, by how much will the company need to reduce its price to sell the additional 1,000 bunnies?

A) 2.5%
B) 25%
C) 125%
D) 20%

2. Jacquelyn is a student at Queen's university. Which of the following is NOT an example of an explicit cost of her attending university?

A) tuition
B) textbooks
C) the salary that she could have earned working full time
D) computer lab fees

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3. Consider the market for milkshakes. An increase in the consumer surplus may result from:

A) an increase in the demand for milkshakes.
B) an increase in the supply of milkshakes.
C) a decrease in the demand for milkshakes.
D) none of the above.

4. The Cozy Chair Company believes it can sell 200 chairs at $200 per chair, or 300 chairs at $150 per chair. Using the midpoint formula, you can calculate that the price elasticity of demand (to the nearest tenth) for Cozy Chairs is:

A) 2.5.
B) 1.4.
C) 0.7.
D) 0.5.

5. In the short run:

A) all inputs are fixed.
B) all inputs are variable.
C) some inputs are fixed and some inputs are variable.
D) all costs are variable.

6. A price elasticity of demand of 0.5 means that a 20% increase in price will result in a:

A) 10% decrease in quantity demanded.
B) 20% increase in quantity demanded.
C) 20% decrease in quantity demanded.
D) 10% increase in quantity demanded.

7. Joan loves to eat sushi. Her first piece of sushi normally yields a marginal benefit of $5. Each additional piece creates a declining marginal benefit by $0.25 per piece. If her favorite sushi bar charges $2.75 per piece of sushi, how many pieces should she eat?

A) 8
B) 10
C) 5
D) 11

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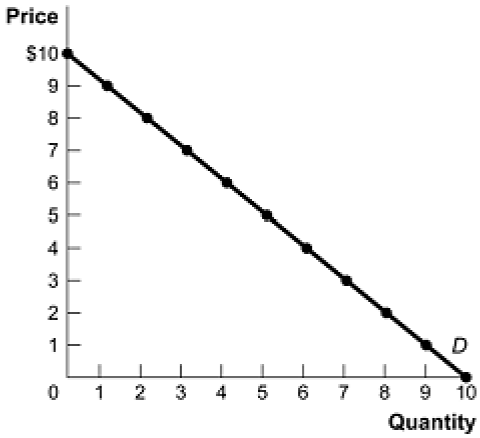
8. Figure: Demand Curve



In the accompanying figure, the price elasticity of demand between $8 and $9, which you can calculate by using the midpoint method, is approximately:

A) 0.18.
B) 0.56.
C) 1.8.
D) 5.67.

9. Along a given demand curve, an increase in the price of a good will:

A) increase consumer surplus.
B) decrease consumer surplus.
C) have no effect on consumer surplus.
D) decrease producer surplus.

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10. Table: Market for Pizza

Price (per pizza)	Quantity of pizza demanded (given income of $1,000 per month)	Quantity of pizza demanded (given income of $1,400 per month)
$20	3	7
18	4	8
16	5	9
14	6	10
12	7	11
10	8	12
8	9	13
6	10	14

In the accompanying table, the income elasticity of demand for pizza at a price of $14 per pizza when income changes from $1,000 to $1,400 per month is:

A) –1.
B) 1.
C) 1.25.
D) 1.5.

11. The price elasticity of demand:

A) measures the responsiveness of quantity demanded to a change in price.
B) measures the responsiveness of price to a change in quantity demanded.
C) measures the extent to which prices are flexible and respond to market forces.
D) measures the responsiveness of demand when price is held constant and demand increases or decreases.

12. If the government raises the excise tax on gasoline by $1, then the consumer surplus will ______ and the producer surplus will ______.

A) increase; increase
B) increase; decrease
C) decrease; decrease
D) decrease; increase

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13. A perfectly price-inelastic demand curve is:

A) horizontal.
B) downward sloping.
C) upward sloping.
D) vertical.

14. Along a given supply curve, an increase in the price of a good will:

A) increase producer surplus.
B) decrease producer surplus.
C) increase consumer surplus.
D) both b and c

15. After you graduate from college, you open a business selling computers. There are many other businesses in your city that sell similar computers. The price elasticity of demand for the computers that your business sells will be:

A) 1.
B) 0.
C) highly elastic.
D) highly inelastic.

16. “Market failure” refers to a situation in which:

A) markets fail to reach a fair outcome.
B) markets establish a high price for necessities.
C) market-determined wages are not high enough to raise all workers above the poverty line.
D) markets fail to reach an efficient outcome.

17. In a linear demand curve:

A) demand is elastic at low prices.
B) demand is inelastic at high prices.
C) elasticity is the same at all points on the demand curve.
D) none of the above is correct.

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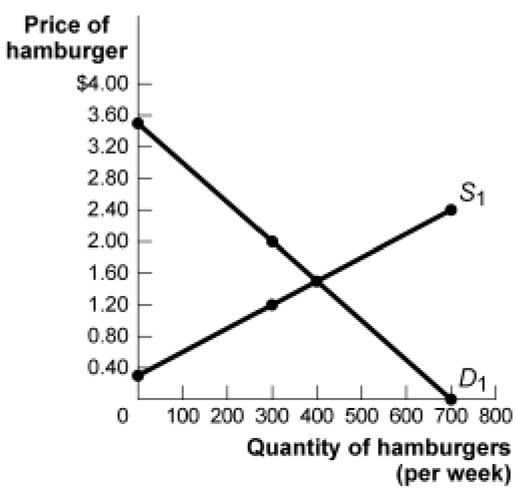
18. Table: Consumer Surplus and *Phantom* Tickets

Student	Willingness to pay
Jessica	$150
Jacquelyn	125
Brad	105
Robert	60
Gwen	25

If the box-office price of a ticket to see *Phantom of the Opera* is $50, and there is no other market for tickets, then total consumer surplus for the five students is:

A) $100.
B) $175.
C) $230.
D) $240.

19. Figure: Market for Hamburgers



The accompanying figure shows the weekly market for hamburgers at the Tasty Burger Palace. If the Palace lowers the price of a burger from $2 to $1.50, the gain in consumer surplus to consumers who are persuaded to buy because of the lower price (and who were not buying when the price was $2) is equal to:

A) $100.
B) $75.
C) $50.
D) $25.

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20. Peanut butter and jelly are complements. If there is a decrease in the price of jelly, producer surplus in the peanut butter market:

A) will increase.
B) will decrease.
C) will not change.
D) may change, but it is impossible to tell if it will increase or decrease.

21. If the government imposes a binding price-ceiling on a good, then which of the following will NOT occur?

A) Producer surplus will decrease.
B) Consumer surplus may increase or decrease.
C) Total surplus will remain constant.
D) The quantity of the good transacted will decrease.

22. Peanut butter is an inferior good. If there is an increase in income, total surplus in the peanut butter market:

A) will increase.
B) will decrease.
C) will not change.
D) may change, but we cannot determine the change without more information.

23. Which of the following is true when a market is in equilibrium and there is no government intervention?

A) Total surplus is maximized.
B) The deadweight loss is eliminated.
C) No mutually beneficial trades are missed.
D) All of the above are correct.

24. Tara notices that one hour of studying causes her economics grade to improve by 11 points, while the second hour increases her average by 7 points, the third hour yields a 4-point gain and the fourth hour only 1 point. This means that the marginal ______ of studying decreases over time.

A) cost
B) benefit
C) opportunity cost
D) time

25. The cross-price elasticity of electricity with respect to the price of natural gas has been estimated as being equal to 0.2. This implies that:

A) natural gas and electricity are both normal goods.
B) electricity and natural gas are complements.
C) electricity and natural gas are substitutes.
D) one of the two goods is inferior while the other is normal, but we need additional information to determine which of them is inferior.

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Short answer question [2.5 marks]:

a. The supply schedule for pizza is given below:

Price ($)	Quantity supplied
1.00	0
1.50	40
2.00	60
2.50	90
3.00	120
5.00	150

Calculate the price elasticity of supply for a price increase from $2.00 to $2.50 using the mid-point method.

$\boldsymbol{\varepsilon_s = 1.8}$

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b) In the table below fill in the values for the average product of labour and the marginal product of labour. Remember that the formula for marginal product is:

$$MPL = \Delta Q / \Delta L$$

Quantity of Labour	Total Product	Average Product	Marginal Product
0	0		
10	100	**10**	**10**
20	180	**9**	**8**
25	200	**8**	**4**
30	210	**7**	**2**
50	250	**5**	**2**