Econ 101 Prof Wallace Fall 2003

Homework #5 Answers

- 1. Tonya, who is rich, and Jerome, who is poorer, both buy orange juice and croissants for lunch at the student cafeteria. Their budget constraints on a diagram with orange juice on the vertical axis and croissants on the horizontal have the same
 - a. horizontal intercepts.
 - b. vertical intercepts.
 - c. slopes.
 - d. midpoints.
- 2. Lily is a college student who likes to buy only two goods: Cheetos and Pepsi. To determine Lily's budget line, you need to know
 - I. Lily's preferences for Cheetos and Pepsi.
 - II. The prices of Cheetos and Pepsi.
 - III. Lily's income.
 - a. II only.
 - b. I and II.
 - c. II and III.
 - d. I, II and III
- 3. Utility can best be described as
 - a. a concept that can be derived from a demand curve.
 - b. a testable hypothesis about the level of happiness achieved from consumption of goods.
 - c. an abstract concept useful for obtaining predictions about human behavior.
 - d. the units that measure a person's income.
- 4. Diminishing marginal utility means that
 - a. Ralph will enjoy his second hamburger less than the first.
 - b. the total utility from one hamburger exceeds the total utility from two hamburgers.
 - c. the price of two hamburgers is twice the price of one.
 - d. beyond a certain point, total utility decreases as income rises.



- 5. In the figure above, diminishing marginal utility is shown by
 - a. total utility curve A.
 - b. total utility curve *B*.
 - c. total utility curve C.
 - d. all three curves.
- 6. Which of the following occur when a person maximizes utility?
 - I. the marginal utility of each good bought is equal
 - II. the highest level of utility is attained
 - III. all of a person's budget is spent
 - a. I and II.
 - b. I and III.
 - c. II and III.
 - d. I, II and III.
- 7. When Ramona is in consumer equilibrium,
 - a. her total utilities of all goods are equal.
 - b. she is maximizing her utility, given her income and the prices of goods and services.
 - c. her total utility per dollar spent is equal for all goods.
 - d. any change in prices would make her worse off.
- 8. Suppose the price of a soda is \$2 each, the price of a hot dog is \$3 each and the budget is \$20. If the marginal utility of the fourth soda is 100 and the marginal utility of the fourth hot dog is 150, to maximize utility, a person will buy
 - a. 4 sodas and 4 hot dogs.
 - b. more hotdogs than 4 and fewer sodas than 4 because hot dogs provide more utility.
 - c. buy more sodas than 4 to increase their utility.
 - d. fewer sodas than 4 and more hot dogs than 4.

Bags of popcorn		Bottles of sodas	
	Marginal		Marginal
Quantity	utility	Quantity	utility
1	100	1	60
2	80	2	50
3	60	3	30
4	50	4	20

- 9. In the table above, if Brent maximizes his utility by consuming 3 bags of popcorn and 3 bottles of soda, then the ratio of the price of popcorn to the price of soda must be
 - a. 1/2.
 - b. 5/6.
 - c. 6/5.
 - *d*. 2.



- 10. Morriss has an income of \$100 per week. The price of dog food is \$2 per can and the price of cat food is \$2 per can. However, there is a volume discount for cat food: If he buys more than 25 cans per week, the price of an additional can is only \$1. In the above figure, Morriss's budget line runs through points
 - a. *A*, *B*, and *C*.
 - b. *A*, *B*, and *D*.
 - c. A, B, and E.
 - $d. \quad A,B, and F$
- 11. Draw a graph with in which you show the effect of decrease in the price of x (decomposed into the income and substitution effects) under the following assumptions
 - a. x is a normal good, y is a normal good, and x and y are compliments.
 - b. x is a inferior good, y is a normal good, x and y are compliments.
 - c. x is a normal good, y is a normal good, x and y are substitutes.

It is very difficult to draw these with the computer. Please refer to the pictures in the book and from your notes.