

Multiple Choice:

1. For students who attend public colleges, the average opportunity cost of foregone wages is:
 - a. less than the cost of college tuition
 - b. more than the cost of college tuition
 - c. equal to the cost of college tuition

2. The info provided in Application 3.1 provides the following assessment of Bill Gates' decision to drop out of Harvard
 - a. This was a wise decision for Bill Gates because the opportunity cost of attending college exceeded the long-term benefit of attending college. His opportunity cost was high because of his unusual entrepreneurial skill.
 - b. This would probably be a wise decision for most people; statistics show that our society places too much emphasis on education.
 - c. This was an unwise decision. Bill Gates could have started Microsoft after he graduated from college.
 - d. None of the above

3. In-text exercise 3.2 provides information about total benefit. Use this information to compute marginal benefits. Which of the following statements is true?
 - a. The marginal benefit of the third quarter hour of repair time is 20.
 - b. The marginal benefit of the fifth quarter hour of repair time is 20.
 - c. The marginal benefit of the second quarter hour of repair time is 20.
 - d. The marginal benefit of the seventh quarter hour of repair time is 20.

4. Application 3.2 focuses on a commuter who is free to choose the number of hours she works each week. She earns a set amount (equal to her wage rate) for each hour she works. When she is not working, she is enjoying leisure activities. Assuming that (i) she is allocating her time optimally and (ii) she does not dislike her work, the "No Marginal Improvement Principle" tells us that:
 - a. Her marginal benefit from leisure activities is equal to her wage rate.
 - b. We cannot use the wage rate to estimate the value of leisure time because people do not earn wages while they are engaged in leisure activities.
 - c. The value of time cannot be measured in dollars because each individual life is precious.
 - d. None of the above

5. Application 3.2 states that estimates of the value of time are useful because:
 - a. Time is money.
 - b. Knowing the value of time will help students realize that they should study more.
 - c. Highway construction projects can reduce commuting time substantially by reducing highway congestion. However, these projects can be extremely expensive. When policy-makers are evaluating project proposals, they need to compare costs and benefits. The cost estimates are provided by highway engineers. If the primary benefit is reduced commuting time, then it is necessary to estimate the value of that time.
 - d. None of the above

6. Application 3.2 states that:
 - a. If a commuter dislikes her job, then the value of an extra hour spent working is less than her wage rate.
 - b. If a commuter does not dislike her job, then the value of an extra hour spent working is equal to her wage rate.
 - c. Both a and b.
 - d. None of the above.

7. Application 3.3 is very interesting. Construction of the English Channel tunnel was started in 1987. Construction was financed by private investors, who clearly expected to earn a profit. By 1990, however, it was clear that the actual construction costs would be much higher than the initial estimates. Suppose accurate cost information had been available in 1987, prior to the decision to start construction. In 1987:
- The investors would have decided to build the tunnel even though they knew that the costs would exceed the revenues. The costs were sunk costs, so the investors would have ignored them.
 - The cost of constructing the tunnel was an avoidable cost.
 - The investors were concerned that France would use the tunnel to invade England.
 - None of the above.
8. Use the marginal cost information provided in the table to compute the total cost of producing 3 items:

Quantity	Marginal cost
0	
1	10
2	12
3	16

- 28
 - 16
 - 38
 - none of the above
9. Use Figure 4.5 for this question. Sam's car has horsepower equal to 120 and fuel efficiency equal to 15 mpg. If you trade his car for a car with horsepower equal to 90 and fuel efficiency equal to 30, will he agree to make the trade? Will he be willing to pay some amount of money to be able to make this trade? (We are assuming that all other characteristics of the car are equal.)
- He will not agree to make an even trade (no money changes hands on an even trade).
 - He would make an even trade, but he would not be willing to pay anything to make the trade possible.
 - He would make an even trade, and he would be willing to pay some amount of money to make the trade possible.
 - Figure 4.5 does not provide enough information to answer this question.
10. In-text exercise 4.2 asks you to draw indifference curves represented by the formula: $C = U - 1.2 P$. Use this indifference curve equation to compute U when $C = 1$ and $P = 0$.
- $U = 1$
 - $U = 1.2$
 - $U = 1/1.2$
 - None of the Above
11. In-text exercise 4.4 focuses on the utility function: $U(C, M) = C + 3\sqrt{M}$, where C is liters of Coke and M is liters of Mountain Dew. Compute Bert's utility if he consumes 8 liters of Coke and 9 liters of Mountain Dew.
- 72
 - 17
 - 35
 - none of the above
12. In-text exercise 4.5 asks you to figure out the formula for an indifference curve by plotting points for the utility equation provided in In-text exercise 4.4. To get ready for this exercise, write the equation for utility equal to 20: $U = 20 = C + 3\sqrt{M}$. Now you can rearrange this equation to put C on the left-hand side (remember that the axes for the indifference curve diagram represent the quantity of C and the quantity of M). The new equation is:

- a. $C = 20 / (3\sqrt{M})$
- b. $C = 20 + 3\sqrt{M}$
- c. $C = 20 - 3\sqrt{M}$
- d. None of the above

13. Mary is willing to give up 3 cups of soup to obtain 5 slices of bread. For Mary,

- a. Bread and soup are complements.
- b. Bread and soup are substitutes.
- c. You can't tell whether bread and soup are complements or substitutes.
- d. None of the above.

14. Consider Figure 4.6. Assume that Sam starts at the point that represents 4 pints of soup and 5 ounces of bread. Which of the following statements is true?

- a. Sam will not be willing to move to the point with 5 pints of soup and 6 ounces of bread, unless you pay him money to do it.
- b. Sam would be willing to pay you some money for the privilege of moving to the point with 5 pints of soup and 6 ounces of bread.
- c. Sam's utility would not change if he moved to the point with 5 pints of soup and 6 ounces of bread.
- d. None of the above

15. If an indifference curve has the shape shown in Figure 4.14, then

- a. the indifference curves have diminishing MRS
- b. the item graphed on the horizontal axis is a "bad", while the other item is a "good"
- c. the two goods are perfect substitutes
- d. None of the above.

16. The indifference curves shown in this Figure 4.14 represent

- a. one "good" and one "bad"
- b. perfect substitutes
- c. perfect complements
- d. None of the above

Essay Questions

- See end-of-chapter 3 questions:

3.3, 3.6, 3.9

- See end-of-chapter 4 questions:

4.2, 4.3, 4.5, 4.8, 4.11, 4.14, 4.16, 4.17