

Principles of Microeconomics
Assignment 5 (Chapter 7)
Answer Sheet

Name _____ Class Day/Time _____

Questions of this homework are in the next few pages. Please find the answer of the questions and fill in the blanks below. Turn in this answer sheet on the due date in class. Keep the remaining pages to study.

1. _____

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ECON 2106 Principles of Microeconomics
Assignment 5 (Chapter 7)

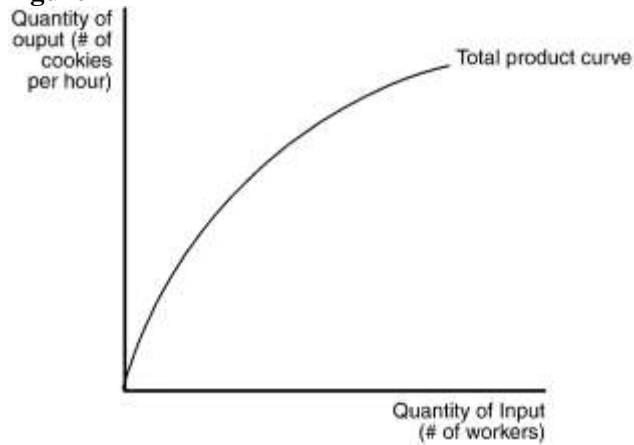
Scenario 1. Tony is a wheat farmer, but he also spends part of his day teaching guitar lessons. Due to the popularity of his local country western band, Farmer Tony has more students requesting lessons than he has time for if he is to also maintain his farming business. Farmer Tony charges \$25 an hour for his guitar lessons. One spring day, he spends 10 hours in his fields planting \$130 worth of seeds on his farm. He expects that the seeds he planted will yield \$300 worth of wheat.

- ___ 1. Refer to Scenario 1. What is Tony's explicit cost and implicit cost?
- \$380 and \$0
 - \$130 and \$250
 - \$250 and \$680
 - \$\$380 and \$680
- ___ 2. Refer to Scenario 1. What total revenue does Tony expect?
- \$170
 - \$80
 - \$300
 - \$0
- ___ 3. Refer to Scenario 1. Tony's accounting profit and economic profit equal
- \$170 and -\$80
 - \$50 and \$170
 - \$170 and \$80
 - \$380 and \$300
- ___ 4. Refer to Scenario 1. How much should Tony's accounting profit be in order for him to earn normal profit?
- \$80
 - \$170
 - \$380
 - \$250
- ___ 5. For a large firm that produces and sells automobiles, which of the following costs would be a variable cost?
- the \$20 million payment that the firm pays each year for accounting services
 - the cost of the steel that is used in producing automobiles
 - the rent that the firm pays for office space in a suburb of St. Louis
 - all of the above are correct
- ___ 6. Suppose a certain firm is able to produce 160 units of output per day when 15 workers are hired. The firm is able to produce 176 units of output per day when 16 workers are hired (holding other inputs fixed). Then the marginal product of the 16th worker is
- 10 units of output
 - 11 units of output
 - 16 units of output
 - 176 units of output

- ___ 7. Which of the following costs do not vary with the amount of output a firm produces?
- average fixed costs
 - fixed costs and average fixed costs
 - marginal costs and average fixed costs
 - fixed costs
- ___ 8. Suppose Jan is starting up a small lemonade stand business. Variable costs for Jan's lemonade stand would include the cost of
- building the lemonade stand.
 - hiring an artist to design a logo for her sign.
 - lemonade mix.
 - All of the above are correct.

The figure below depicts a production function for a firm that produces cookies. Use the figure to answer the following questions.

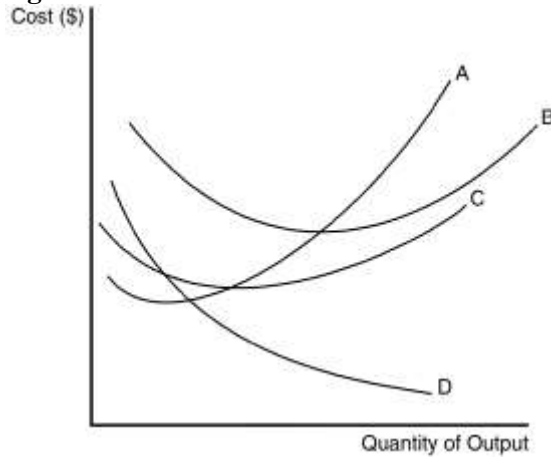
Figure 7-1



- ___ 9. Refer to Figure 7-1. As the number of workers increases,
- total output increases, but at a decreasing rate.
 - marginal product increases, but at a decreasing rate.
 - marginal product increases at an increasing rate.
 - total output decreases.
- ___ 10. Refer to Figure 7-1. With regard to cookie production, the figure implies
- diminishing marginal product of workers.
 - diminishing marginal cost of cookie production.
 - decreasing cost of cookie production.
 - increasing marginal product of workers.

The curves below reflect information about the cost structure of a firm. Use the figure to answer the following questions.

Figure 7-2



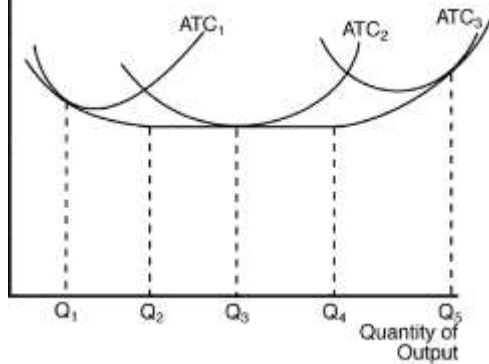
- ___ 11. Refer to Figure 7-2. Which of the curves is most likely to represent average total cost?
 a. A b. B c. C d. D
- ___ 12. Refer to Figure 7-2. Which of the curves is most likely to represent average fixed cost?
 a. A b. B c. C d. D

Scenario 2

A certain firm produces and sells staplers. Last year, it produced 5,000 staplers and sold each stapler for \$8. In producing the 5,000 staplers, it incurred variable costs of \$30,000 and a total cost of \$45,000.

- ___ 13. Refer to Scenario 2. The firm's fixed costs amounted to
 a. \$15,000. b. \$30,000. c. \$40,000. d. \$50,000.
- ___ 14. Refer to Scenario 2. In producing the 5,000 staplers, the firm's average fixed cost was
 a. \$3. b. \$4. c. \$5. d. \$7.
- ___ 15. Refer to Scenario 2. In producing the 5,000 staplers, the firm's average variable cost was
 a. \$2. b. \$4. c. \$6. d. \$8.
- ___ 16. Refer to Scenario 2. In producing the 5,000 staplers, the firm's average total cost was
 a. \$6. b. \$7. c. \$8. d. \$9.
- ___ 17. Refer to Scenario 2. The firm's economic profit for the year was
 a. -\$35,000. b. -\$5,000 c. \$10,000. d. \$40,000.

Figure 7-3



- ___ 18. Refer to Figure 7-3. The three average total cost curves on the diagram correspond to three different
- a. time horizons.
 - b. products.
 - c. firms.
 - d. plant sizes.
- ___ 19. Refer to Figure 7-3. The firm experiences economies of scale if it changes its level of output
- a. from Q_1 to Q_2 .
 - b. from Q_2 to Q_3 .
 - c. from Q_3 to Q_4 .
 - d. from Q_4 to Q_5 .
- ___ 20. Refer to Figure 7-3. The firm experiences diseconomies of scale if it changes its level of output
- a. from Q_1 to Q_2 .
 - b. from Q_2 to Q_3 .
 - c. from Q_3 to Q_4 .
 - d. from Q_4 to Q_5 .