

Practice Problem 2 – Microeconomic Principles

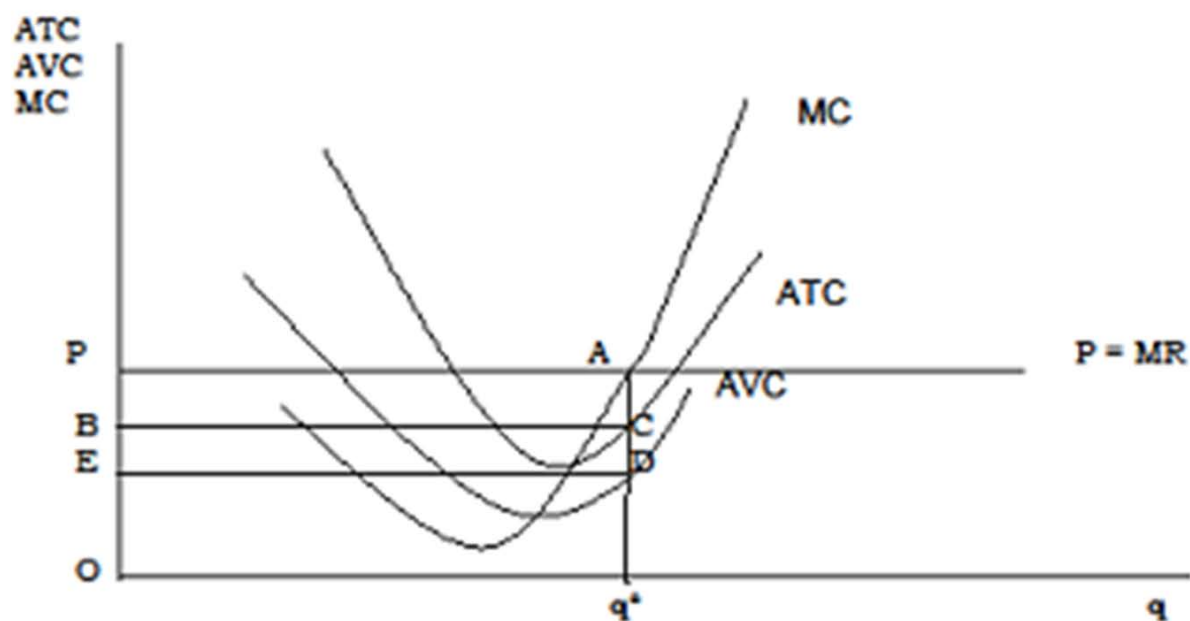
Not required to be handed in, but will be discussed in class

1. What is the difference between accounting costs and economics costs? Normal profit and economic profit?
2. What are the various types of business organizations? What are the advantages and disadvantages of each?
3. What is meant by the principal-agent problem? Give some examples.
4. The table below gives the production function for the Dennis McCornac eyeglass company.

| Dennis McCornac Eyeglass Company #workers | Output | Avg. Product | Marginal Product |
|--|--------|--------------|------------------|
| 1 | 1200 | | |
| 2 | 2200 | | |
| 3 | 3000 | | |
| 4 | 3600 | | |
| 5 | 4000 | | |

- a. Compute the average and marginal products for each worker.
 - b. Graph the production function. On a separate graph, plot the average and marginal production functions. c. Does this production function exhibit diminishing, constant, or increasing returns per worker? Why or why not? Explain.
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5. The production function for tomatoes depends on the amount of labor and land. If the amount of land is held fixed the marginal product of labor function is subject to constant returns beginning with the first unit of labor. Given this information, what is the shape of the marginal cost function? Why?
 6. Define marginal cost. Why does marginal cost eventually increase as total product increases?
 7. What is the relationship between the long-run average cost curve and the short-run average cost curves? What do economies of scale and diseconomies of scale have on the shape of the long-run average cost curve?

8. What are the two main differences between the short-run and long-run? Why does diminishing marginal product exist in the short-run, but not the long run?
9. Why is marginal revenue equal to both average revenue and price in a perfectly competitive setting?
10. Why can't a perfectly competitive firm influence industry price?
11. How can the shape of a firm's long-run average cost curve determine the optimal size of the firm?
12. Refer to the graph below.



- a. What is the profit-maximizing level of output?
- b. What is the amount of total revenue at the profit-maximizing level of output?
- c. What is the amount of total variable cost at the profit-maximizing level of output??
- d. What is the amount of total fixed cost at the profit-maximizing level of output?