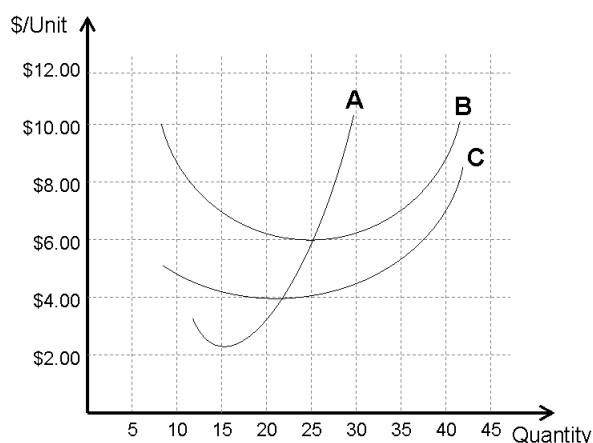


HOMEWORK VI
(Submission date: Dec., 26 2024)
(Late submissions will not be evaluated)

1. Use the following data to draw a long-run average total cost curve. Label the range of economies of scale, constant returns to scale, and diseconomies of scale.

Quantity	LRATC
5	\$11
10	\$8
15	\$7
20	\$6
25	\$6
30	\$6
35	\$7
40	\$10
45	\$12

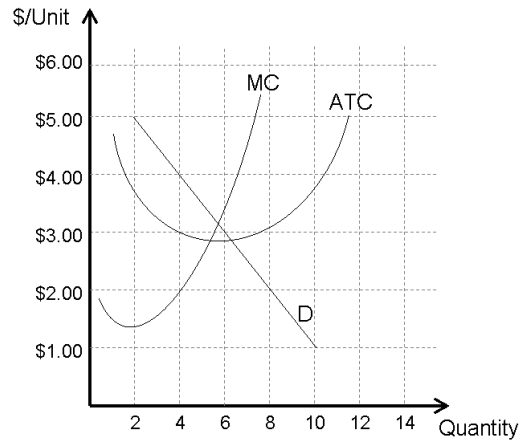
- What is this firm's minimum efficient level of production?
 - What can you conclude about the short run cost of producing 25 units of output?
 - If the owner of this firm told you that they were currently producing 15 units of output and that the average cost was \$7.50, what can you conclude about the technical efficiency and economic efficiency of this firm?
2. The following graph shows cost curves for a perfectly competitive firm in a constant-cost industry.



- If the market price falls below _____ this firm will be suffering economic losses.
- If the market price falls below _____ this firm will choose to shut down in the short run.

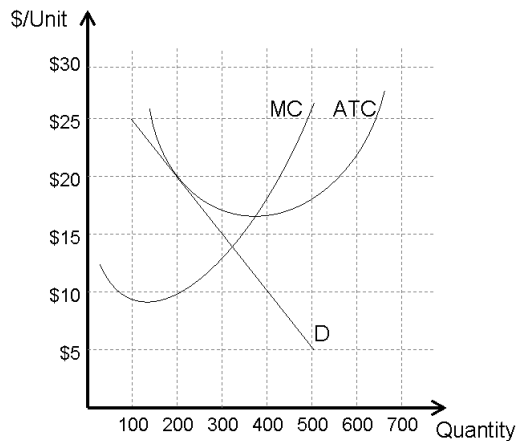
- c. If the market price were \$8, this firm would be earning approximately _____ in economic profit.
- d. In the long run, this firm will produce _____ units of output.

3. The graph below represents the demand curve facing a monopolist along with the firm's average total cost and marginal cost curves.



- a. What is the firm's profit-maximizing output and price?
- b. How much profit does the monopolist earn?
- c. On the graph above, shade in the area that represents the welfare loss due to this monopoly.

4. Refer to the graph below that represents a monopolistically competitive firm to answer the following questions.



- a. What is the profit-maximizing level of output? What price will it charge?
- b. Is this monopolistically competitive firm in long-run equilibrium? Why or why not?

5. The relationship between the variable input labor and output for a perfectly competitive firm producing socks is given below. The firm is using 4 units of capital in the production process. The prices of labor and capital (in TL. per unit) are 2000 and 4000, respectively.

Labor	Output	AP	MP	TFC	TVC	TC	AFC	AVC	ATC	MC
1	20									
2	45									
3	60									
4	70									
5	75									

- Fill in the above table
- Find the capacity of this firm
- Identify the output levels where diminishing AP and diminishing MP of labor set in
- If the price of socks is 200 TL. find the price and output level that will maximize the profits of this firm in the short-run
- Find the level of profits of this firm at short-run equilibrium
- What prices are relevant for the short-run supply curve of this firm?
- What would you expect to happen in the socks industry in the long-run?

6. ABC is a monopoly in supplying surf boards. The firm has the following cost and demand information.

Price	Quantity demanded	Total Cost
140	1	210
120	2	220
100	3	235
80	4	255
65	5	280
50	6	310
35	7	345

- Find the profit maximizing level of output, price, total revenue, total cost and profits of this firm in the short-run
- What would you expect to happen in the socks industry in the long-run?