

Study Guide for Test 3

Know the answers/be able to answer to these questions.

- 1. “A monopolist charges the highest price the market will bear, whereas a perfect competitor does not.” Explain in detail why you agree or disagree with this statement. As part of your answer, be sure to describe how a monopolist determines the profit-maximizing price.**

- 2. Assume that Star Inc. is a monopoly. Explain each of the following for this firm.**
 - a. Why marginal revenue and demand are not equal.**
 - b. How the profit-maximizing level of output and the price are determined in the short-run**
 - c. Why economic profit continue to exist in the long run**

- 3. What is the long-run equilibrium condition for a perfectly competitive firm? Is the long-run equilibrium condition of a perfect competitor allocatively and/or technologically efficient?**

- 4. Bestmilk, a typical profit-maximizing dairy firm, is operating in a constant-cost, perfectly competitive industry that is in long run equilibrium.**
 - a. Draw correctly labeled side-by-side graphs of the dairy market and for Bestmilk and show each of the following**
 - i. Price and output for the industry**
 - ii. Price and output for Bestmilk**
 - b. Assume that milk is a normal good and consumer’s incomes fall. Also assume that Bestmilk continues to produce. On your graphs, in part A, show the effect of the decrease in income on each of the following in the short run.**
 - i. Price and output for the industry**
 - ii. Price and output for Bestmilk**
 - iii. Area of loss or profit for Bestmilk**
 - c. Following the decrease in consumer’s income, what must be true in order for Bestmilk to continue to produce in the short run?**
 - d. Assume that the industry moves to a new long-run equilibrium. Compare the following to the initial condition.**
 - i. Price and output in the industry**
 - ii. The number of firms in the industry**

- 5. In a particular product market, there is only one seller and there are significant barriers to entry.**
 - a. Explain how this firm determines its output and price.**
 - b. Explain whether this firm is producing the efficient level of output.**

6. In the country of Lola, sugar had always been produced in a perfectly competitive industry until a dictator seized power and monopolized the production of sugar.
- Draw a graph that shows the output and price the monopolist would choose to maximize profits.
 - Consider the people of Lola revolt, imprison the dictator, and repeal the law restricting the number of sellers of sugar. Explain two conditions that might lead to an increase in the number of sugar sellers after the repeal of the law.
 - Describe how an individual seller would determine the profit-maximizing output level of sugar if the sugar industry were perfectly competitive.
 - Given your answers in Parts A and C, is the repeal of the law likely to make the sugar market more efficient? In your explanation, be sure to include an explanation of economic efficiency.
7. A perfectly competitive manufacturing industry is in long-run equilibrium. Energy is an important variable input in the production process, and therefore the price of energy is a variable cost. The price of energy decreases for all firms in the industry.
- Explain how and why the decrease in this input price will affect this manufacturing industry's output and price in the short-run.
 - What will be the short-run effect on price, output, and profit of a typical firm in this manufacturing industry? Explain
 - Will firms enter or exit this manufacturing industry in the long-run? Why?
8. Assume that in a perfectly competitive market, a firm's cost and revenue are

Marginal cost = average variable cost at \$20

Marginal cost = average total cost at \$30

Marginal costs = average revenue at \$25

- How will this firm determine the profit-maximizing level of output?
- What price will this firm charge? Explain how the firm determined this price.
- Should this firm produce in the short-run? Why?
- Will this firm earn a profit or incur a loss?

Concepts to Master

Where a firm chooses to produce and why

The cases of profit and losses in perfect competition and the firm's decision to produce

A firm's short-run supply curve

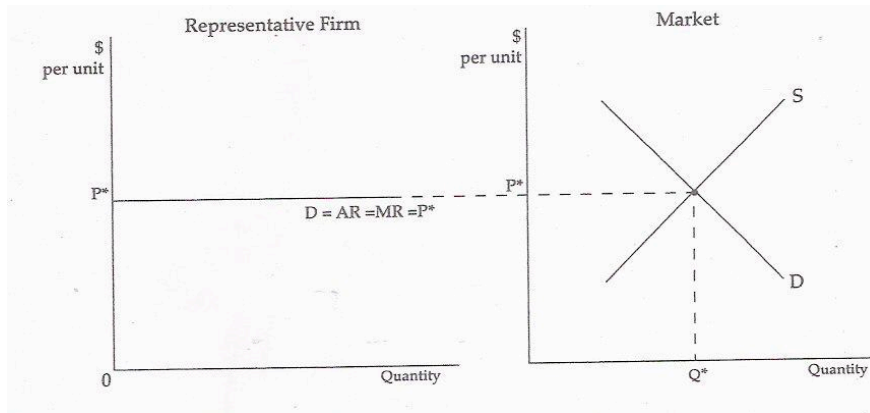
Characteristics of perfect competition

Long run equilibrium

Characteristics of monopoly

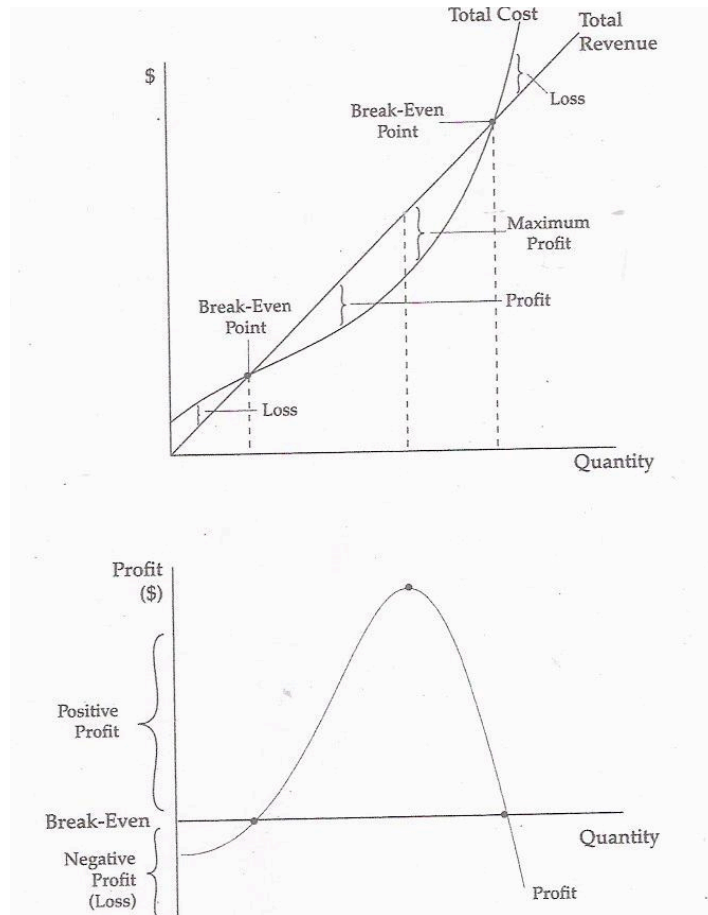
In monopoly, the relationship between marginal revenue and demand

The relationship between output in perfect competition and monopoly



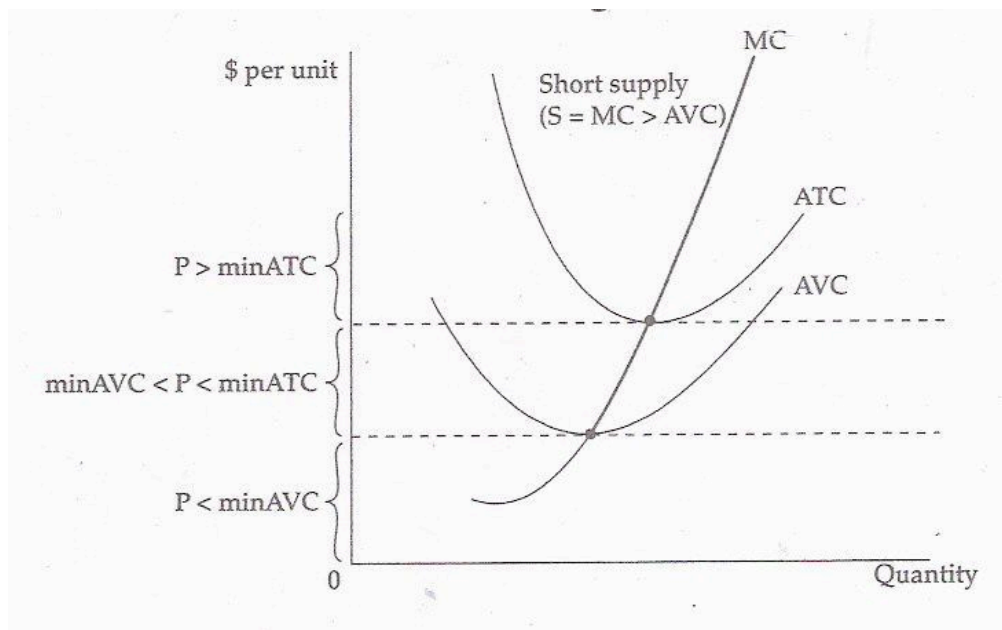
Consider the questions:

- 1. How does the firm “receive” its price?**
- 2. What is the relationship between price, marginal revenue, and average revenue?**



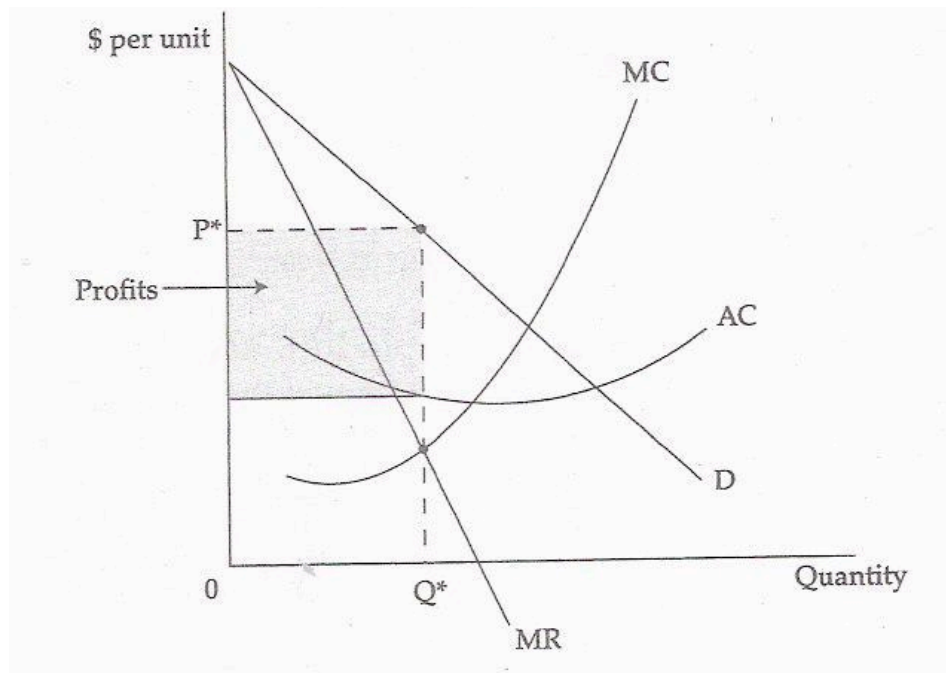
Consider the Questions

- 1. Explain the relationship between total revenue and total cost in determining the profit maximizing output for the firm.**
- 2. Explain how the firm uses the profit function to determine its output.**



Consider the questions:

- 1. What can we say about profits when price is greater than average total cost?**
- 2. What can we say about profits when price is less than average total cost but greater than average variable cost?**
- 3. What can we say about the firm when price is less than average variable cost?**



Consider the questions:

- 1. What can we say about a monopolist's production?**
- 2. When are profits, as shown above, occur and how long can they last?**
- 3. What is the relationship between demand, marginal revenue, and average revenue?**
- 4. How does the monopolist output and perfectly competitive output differ?**