

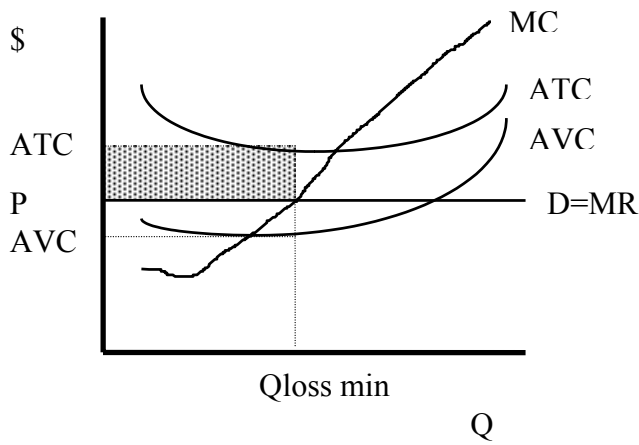
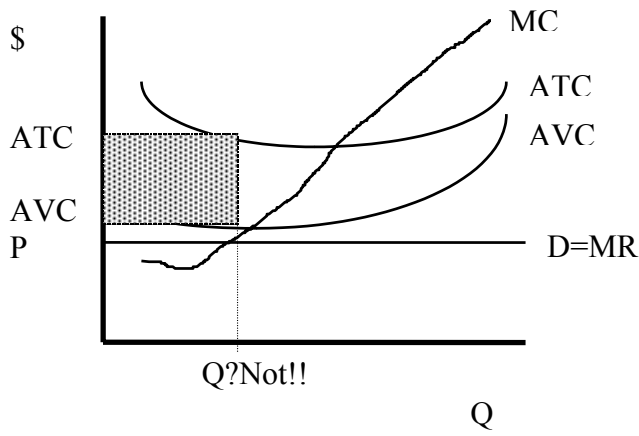
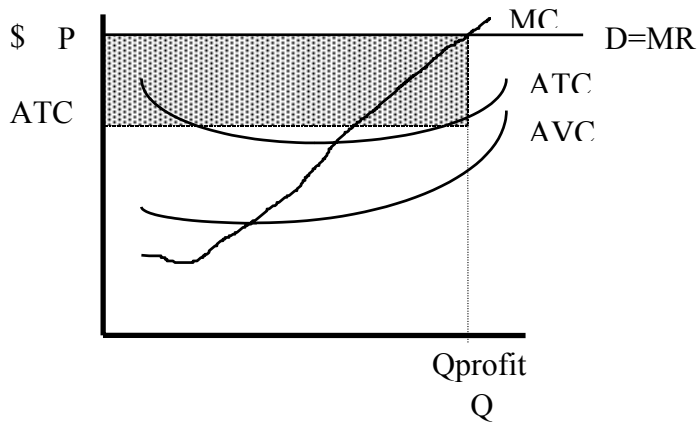
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**Principles of Economics**

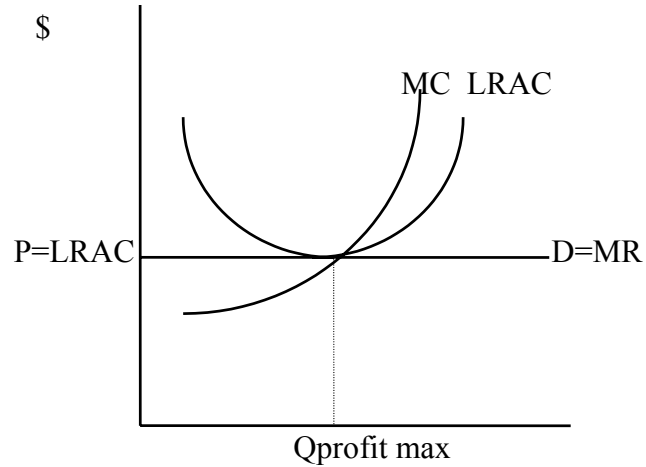
**Study Questions – Firms, I**

1. Illustrate each of the following types of firms on separate graphs. On each graph, label the firm's profit or loss (if any).
  - a) A profit-maximizing perfectly competitive firm in the short run making a positive economic profit.
  - b) A loss-minimizing perfectly competitive firm in the short run which has shut down.
  - c) A loss-minimizing perfectly competitive firm in the short run which is operating but losing money.
  - d) A perfectly competitive firm in the long run attempting to maximize profits.
  
2. Illustrate each of the following types of firms on separate graphs. On each graph, label the firm's profit or loss (if any).
  - a) A profit-maximizing monopoly in the short run making a positive economic profit.
  - b) A loss-minimizing monopoly in the short run which has shut down.
  - c) A loss-minimizing monopoly firm in the short run which is operating but losing money.
  - d) A monopoly in the long run regulated to break even.
  
3. In the **long run** (← this is important!) a profit-maximizing *perfectly competitive* firm is producing 1000 units of cheese. Cheese marginal revenue is \$5.  
Calculate (or state) this firm's marginal cost, average fixed cost, long run average cost, total cost, total revenue, and total profit.

## Answers to Study Questions – Firms 1

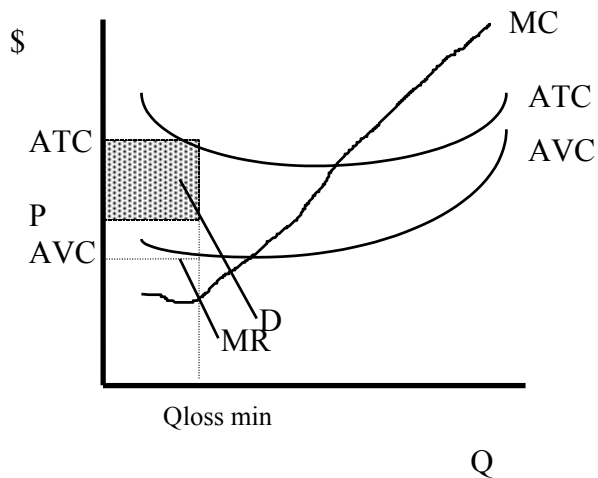
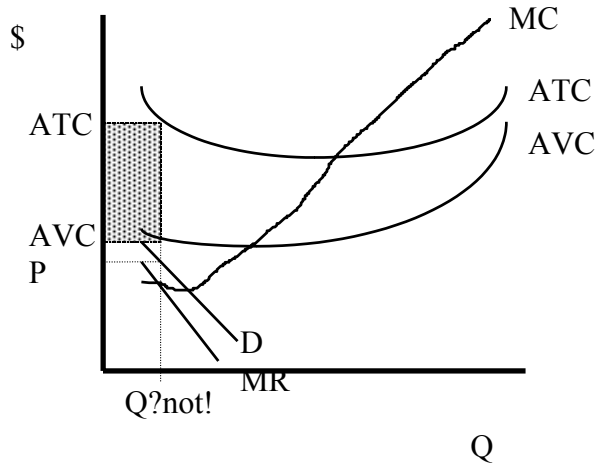
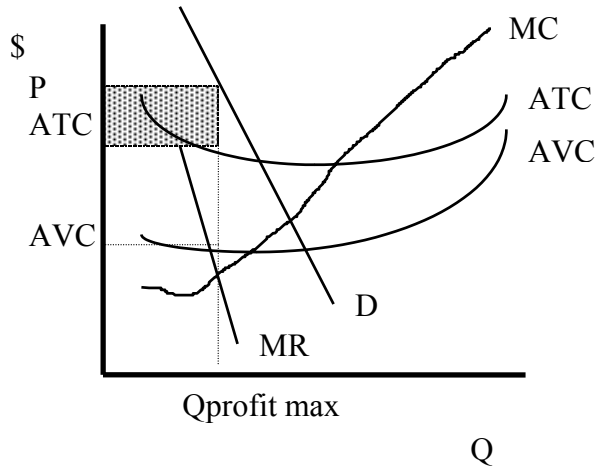
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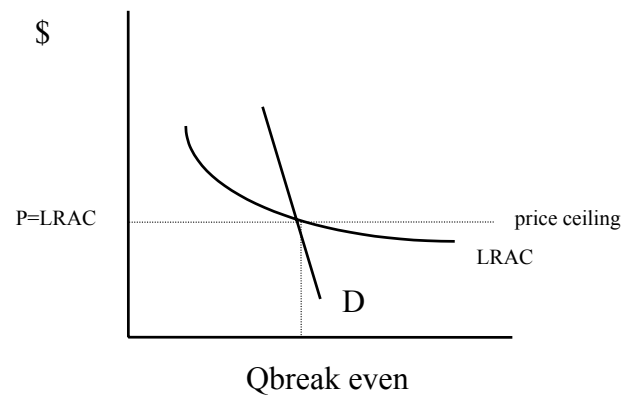




2. Illustrate each of the following types of firms on separate graphs. On each graph, label the firm's profit or loss (if any).

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3. In the **long run** ( $\leftarrow$  this is important!) a profit-maximizing *perfectly competitive* firm is producing 1000 units of cheese. Cheese marginal revenue is \$5.

Calculate (or state) this firm's marginal cost, average fixed cost, long run average cost, total cost, total revenue, and total profit.

Marginal cost = \$5, since marginal cost = marginal revenue for a profit-maximizing firm.

Average fixed cost does not exist, since this firm is operating in the long run.

(Price is \$5, since for a perfectly competitive firm marginal revenue equals price.)

Total revenue = price x quantity = \$5 x 1000 = \$5,000

(Total cost is also \$5,000, since in the long run a perfectly competitive firm earns \$0 profit.)

Total profit = total revenue – total cost = \$5000 - \$5000 = 0

Long run average cost = total cost / Q = \$5000/1000 = \$5