Firms in Competitive Markets

1. In a competitive market, the actions of any single buyer or seller will
   a. have a negligible impact on the market price.
   b. adversely affect the profitability of more than one firm in the market.
   c. cause a noticeable change in market production and price.
   d. have little effect on market production, but ultimately change price.

ANSWER: a. have a negligible impact on the market price.

A Competitive Firm

Quantity	Total Revenue	Total Cost
0	$ 0	$ 10
1	6	14
2	12	19
3	18	25
4	24	32
5	30	40
6	36	49
7	42	59
8	48	70
9	54	82

2. According to the competitive firm table shown, at a production level of 4 units which of the following is true?
   a. Fixed cost is zero.
   b. Marginal cost is $6.
   c. Total revenue is less than variable cost.
   d. Marginal revenue is less than marginal cost.

ANSWER: d. Marginal revenue is less than marginal cost.

3. According to the competitive firm table shown, if this firm chooses to maximize profit, it will choose a level of output where marginal cost is equal to
   a. 1.
   b. 3.
   c. 5.
   d. 6.

ANSWER: d. 6.

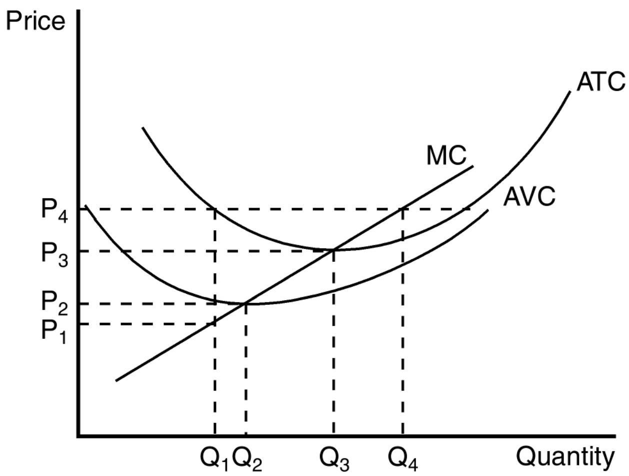
4. If marginal cost is less than marginal revenue
   a. the firm must be experiencing losses.
   b. the firm must be earning a profit.
   c. the firm must be maximizing profits.
   d. a profit-maximizing firm should increase the level of production.

ANSWER: d. a profit-maximizing firm should increase the level of production.

5. Which of the following is a characteristic of a perfectly competitive market?
   a. Firms are price setters.
   b. There are few sellers in the market.
   c. Firms can exit and enter the market freely.
   d. All of the above are correct.

ANSWER: c. Firms can exit and enter the market freely.

The graph depicts the cost structure for a firm in a competitive market



6. According to the graph, when price falls from P_4 to P_1, the firm
- **a. has greater fixed cost at production level Q_1 than at Q_3.**
- **b. is unwilling to produce any output.**
- **c. should produce Q_1 units of output.**
- **d. None of the above is correct.**

ANSWER: b. is unwilling to produce any output.

7. According to the graph, when price falls from P_4 to P_3, the firm finds that
- **a. average revenue exceeds marginal revenue at a production level of Q_3.**
- **b. profits are greater than zero at Q_3.**
- **c. profits are maximized at a production level of Q_3.**
- **d. All of the above are correct.**

ANSWER: c. profits are maximized at a production level of Q_3.

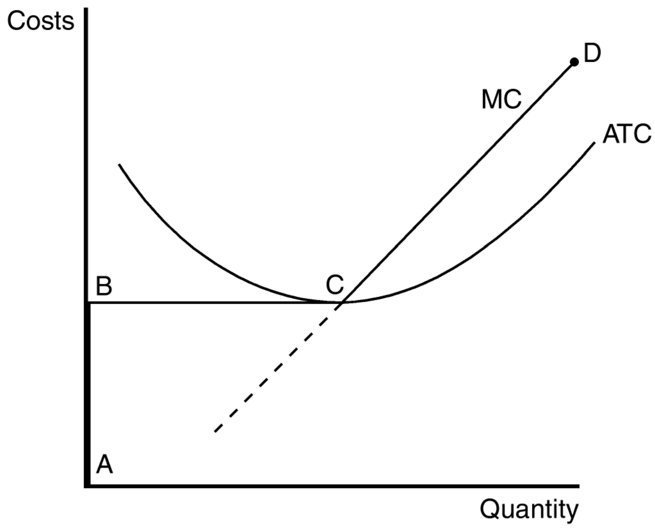
8. If a perfectly competitive firm currently produces where price is greater than marginal cost it
- **a. will increase its profits by producing more.**
- **b. will increase its profits by producing less.**
- **c. is making positive economic profits.**
- **d. is making negative economic profits.**

ANSWER: a. will increase its profits by producing more.

9. When a perfectly competitive firm makes a decision to shut down, it is most likely that
- **a. price is below the minimum of average variable cost.**
- **b. fixed costs exceed variable costs.**
- **c. average fixed costs are rising.**
- **d. marginal cost is above average variable cost.**

ANSWER: a. price is below the minimum of average variable cost.

The figure depicts the cost structure of a profit-maximizing firm in a competitive market.



10. According to the figure, which line segment best reflects the long-run supply curve for this firm?

- **a. AB**
- **b. BC**
- **c. CD**
- **d. None of the above, the long-run supply curve requires knowledge of the average variable cost structure.**

ANSWER: c. CD

11. According to the figure, this firm will exit the market for any price on the line segment

- **a. CD.**
- **b. AB.**
- **c. CB.**
- **d. None of the above is correct.**

ANSWER: b. AB.

12. A profit-maximizing firm making losses (negative profit), but still producing output faces which of the following conditions?

- **a. P > ATC**
- **b. P > AVC**
- **c. Both of the above are correct.**
- **d. Neither of the above is correct.**

ANSWER: b. P > AVC

13. The profits of a profit-maximizing firm equal

- **a. P × Q.**
- **b. (P – ATC) × Q.**
- **c. (ATC – P) × Q.**
- **d. (MC – AVC) × Q.**

ANSWER: b. (P – ATC) × Q.

14. When a profit-maximizing firm's fixed costs are considered sunk in the short run it

- **a. will never show losses.**
- **b. can set price above marginal cost.**
- **c. maximizes profit by choosing an output level where price exceeds marginal cost.**
- **d. can safely ignore fixed costs when deciding how much to produce.**

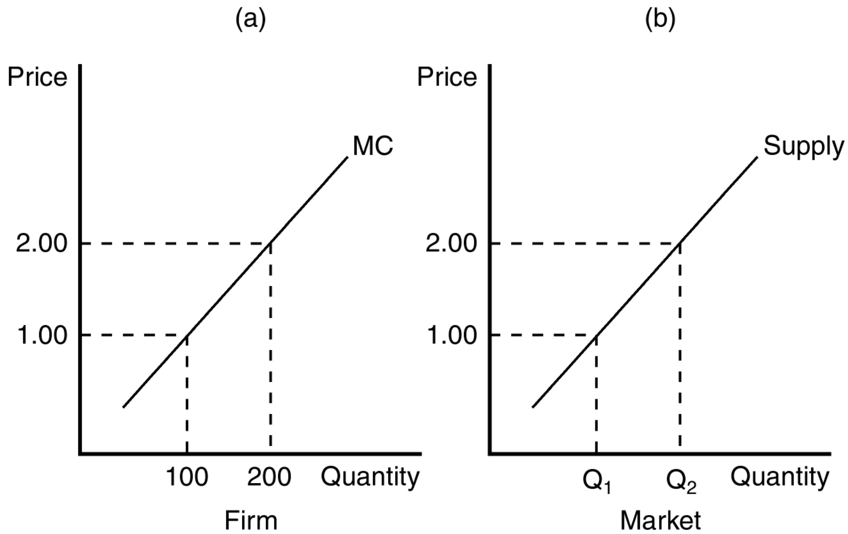
ANSWER: d. can safely ignore fixed costs when deciding how much to produce.

15. In the long run, a profit-maximizing firm will choose to exit a market when

- **a. fixed costs exceed sunk costs.**
- **b. average fixed cost is rising.**
- **c. revenue from production is less than total costs.**
- **d. marginal cost exceeds marginal revenue at the current level of production.**

ANSWER: c. revenue from production is less than total costs.

In the figure, panel (a) depicts the linear marginal cost of a firm in a competitive market and panel (b) depicts the linear market supply curve for a market with a fixed number of identical firms.



16. According to the figure, if there are 200 identical firms in this market, what level of output will be supplied to the market when price is $2.00?
- **a. 10,000**
- **b. 20,000**
- **c. 40,000**
- **d. It cannot be determined from the information provided.**

ANSWER: c. 40,000

17. According to the figure, when 150 identical firms participate in this market, at what price will 15,000 units be supplied to this market?
- **a. $1.00**
- **b. $1.50**
- **c. $2.00**
- **d. It cannot be determined from the information provided.**

ANSWER: a. $1.00

18. When firms have an incentive to exit a competitive market, their exit will
- **a. drive down market prices.**
- **b. drive down profits of existing firms in the market.**
- **c. decrease the quantity of goods supplied in the market.**
- **d. All of the above are correct.**

ANSWER: c. decrease the quantity of goods supplied in the market.

19. In a perfectly competitive market, the process of entry or exit ends when
- **a. firms are operating with excess capacity.**
- **b. firms are making zero economic profit.**
- **c. firms experience decreasing marginal revenue.**
- **d. price is equal to marginal cost.**

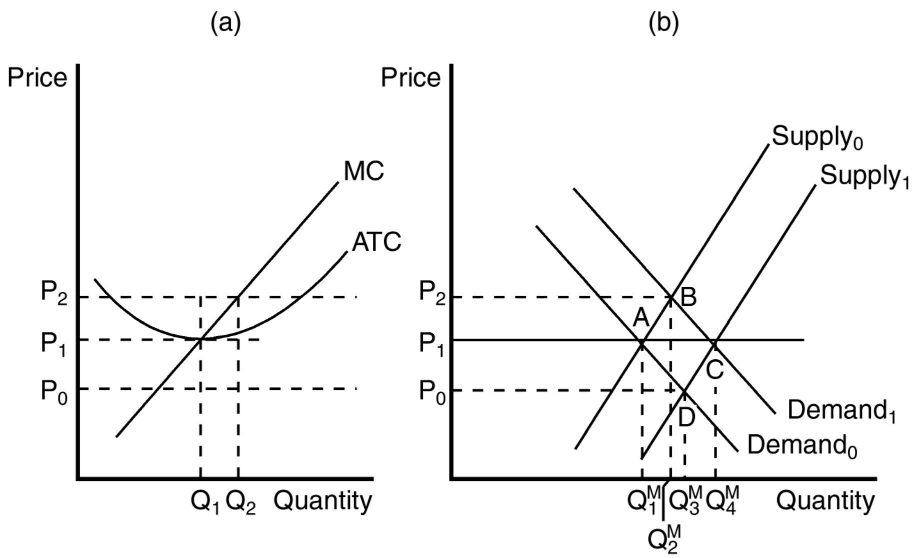
ANSWER: b. firms are making zero economic profit.

20. If all incumbent firms and all potential firms have the same cost curves and the market is characterized by free entry and exit, the long-run market supply curve
- **a. is equal to the sum of marginal cost curves.**
- **b. slopes downward.**
- **c. slopes upward.**
- **d. is horizontal.**

ANSWER: d. is horizontal.

21. The exit of existing firms from a competitive market will
- **a. decrease market supply and increase market prices.**
- **b. decrease market supply and decrease market prices.**
- **c. increase market supply and increase market prices.**

d. increase market supply and decrease market prices.
ANSWER: a. decrease market supply and increase market prices.
22. When firms in an industry have the same cost structure which is not changed by the entry or exit of firms,
a. the long-run market supply curve must be upward sloping.
b. the long-run market supply curve must be horizontal.
c. the long-run market supply curve must be downward sloping.
d. We can't tell anything about the shape of the long-run market supply curve.
ANSWER: b. the long-run market supply curve must be horizontal.



23. According to the figures, if the market starts in equilibrium at point C in panel (b), a decrease in demand will ultimately lead to
a. a higher price.
b. a new long-run equilibrium at point D in panel (b).
c. fewer firms in the market.
d. All of the above are correct.
ANSWER: c. fewer firms in the market.
24. According to the figures, when a firm in a competitive market, like the one depicted in panel (a), observes market price rising from P_1 to P_2, it is most likely the result of
a. entrance of new firms into the market.
b. the exit of existing firms in the market.
c. an increase in market supply from $Supply_0$ to $Supply_1$.
d. an increase in market demand from $Demand_0$ to $Demand_1$.
ANSWER: d. an increase in market demand from $Demand_0$ to $Demand_1$.
25. When a competitive market experiences an increase in demand that induces an increase in producer costs, which of the following is most likely to arise?
a. The long-run market supply curve will be upward sloping.
b. The condition of free entry into the market will be violated.
c. Producer profits must fall in the long run.
d. All of the above are likely to occur.
ANSWER: a. The long-run market supply curve will be upward sloping.

1 ANSWER: a. have a negligible impact on the market price.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 RANDOM: Y

2 ANSWER: d. Marginal revenue is less than marginal cost.
TYPE: M KEY1: D SECTION: 1 OBJECTIVE: 1 INSTRUCTION: 1 RANDOM: N

3 ANSWER: d. 6.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 2 INSTRUCTION: 1 RANDOM: N

4 ANSWER: d. a profit maximizing firm should increase the level of production.
TYPE: M KEY1: C SECTION: 2 OBJECTIVE: 2 RANDOM: Y

5 ANSWER: c. Firms can exit and enter the market freely.
TYPE: M KEY1: C SECTION: 1 OBJECTIVE: 1 RANDOM: Y

6 ANSWER: b. is unwilling to produce any output.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 2 GRAPH: 1 RANDOM: N

7 ANSWER: c. profits are maximized at a production level of Q3.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 2 GRAPH: 1 RANDOM: N

8 ANSWER: a. will increase its profits by producing more.
TYPE: M KEY1: C SECTION: 2 OBJECTIVE: 2 RANDOM: Y

9 ANSWER: a. price is below the minimum of average variable cost.
TYPE: M KEY1: C SECTION: 2 OBJECTIVE: 3 RANDOM: Y

10 ANSWER: c. CD
TYPE: M KEY1: G SECTION: 2 OBJECTIVE: 5 GRAPH:2 RANDOM: N

11 ANSWER: b. AB.
TYPE: M KEY1: G SECTION: 2 OBJECTIVE: 4 GRAPH: 2 RANDOM: N

12 ANSWER: b. P > AVC
TYPE: M KEY1: M SECTION: 2 OBJECTIVE: 2 RANDOM: Y

13 ANSWER: b. $(P - ATC) \times Q$.
TYPE: M KEY1: E SECTION: 2 OBJECTIVE: 2 RANDOM: Y

14 ANSWER: d. can safely ignore fixed costs when deciding how much to produce.
TYPE: M KEY1: D SECTION: 2 OBJECTIVE: 2 RANDOM: Y

15 ANSWER: c. revenue from production is less than total costs.
TYPE: M KEY1: C SECTION: 3 OBJECTIVE: 4 RANDOM: Y

16 ANSWER: c. 40,000
TYPE: M KEY1: C SECTION: 3 OBJECTIVE: 5 GRAPH: 3 RANDOM: N

17 ANSWER: a. $1.00
TYPE: M KEY1: C SECTION: 3 OBJECTIVE: 5 GRAPH: 3 RANDOM: N

18 ANSWER: c. decrease the quantity of goods supplied in the market.
TYPE: M KEY1: D SECTION: 3 OBJECTIVE: 4 RANDOM: Y

19 ANSWER: b. firms are making zero economic profit.
TYPE: M KEY1: C SECTION: 3 OBJECTIVE: 4 RANDOM: Y

20 ANSWER: d. is horizontal.
TYPE: M KEY1: C SECTION: 3 OBJECTIVE: 5 RANDOM: Y

21 ANSWER: a. decrease market supply and increase market prices.
TYPE: M KEY1: C SECTION: 3 OBJECTIVE: 4 RANDOM: Y

22 ANSWER: b. the long-run market supply curve must be horizontal.
TYPE: M KEY1: C SECTION: 3 OBJECTIVE: 5 RANDOM: Y

23 ANSWER: c. fewer firms in the market.
TYPE: M KEY1: E SECTION: 3 OBJECTIVE: 4 GRAPH: 4 RANDOM: N

24 ANSWER: d. an increase in market demand from Demand0 to Demand1.
TYPE: M KEY1: C SECTION: 3 OBJECTIVE: 4 GRAPH: 4 RANDOM: N

25 ANSWER: a. The long-run market supply curve will be upward sloping.
TYPE: M KEY1: D SECTION: 3 OBJECTIVE: 5 RANDOM: Y