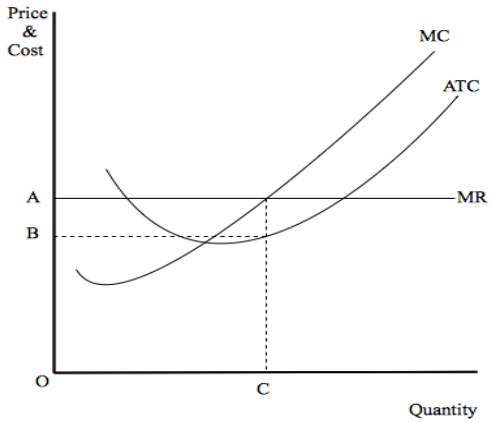
Chapter 9 Q and A

1. If A = 10, B = 8 and C = 20 then the profit is….



a. $ 40
b. $240
c. $150
d. $ 90

2. If your revenue while producing is greater than your variable cost you should
   a. operate in the short run.
   b. shut down.

3. The profit-maximizing rule, MR = MC, is used to determine when to STOP/START (circle answer) production?

4. Which of the following is an assumption of perfect competition?

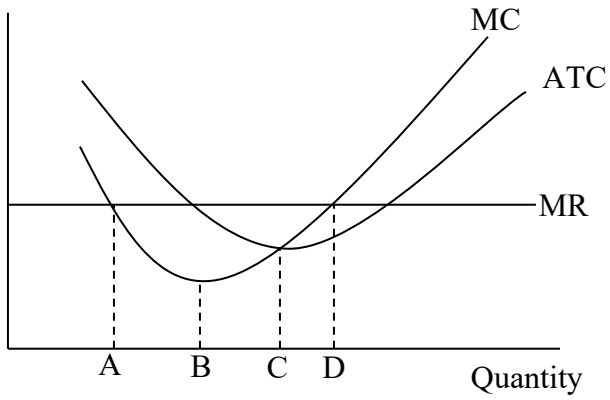
A) There are high barriers to entry and exit in the market.
B) Each of the firms has a significant market share
C) Each of the firms sells a differentiated product.
D) Each firm is small relative to the market.

5. Consider a perfectly competitive industry where all firms are making a loss. All of the following are true EXCEPT

A) We are in the short-run.
B) We expect more firms to exit than enter.
C) Market supply will decrease.
D) Government intervention is necessary to ensure that the industry survives.

6. What quantity should a firm produce if it wants to maximize profit?

A) A
B) B
C) C
D) D



7. Your business currently charges the profit-maximizing price, but you are making a loss. Which of the following should you do?

A) Continue producing regardless; things will turn around eventually.
B) Shut down immediately; get out while you can.
C) Continue producing if your price is greater than your average fixed cost (AFC).
D) Shut down if your price is less than your average variable cost (AVC).

8. When the perfectly competitive firm is at its breakeven point in the long run which of the following is true?

A) It has an accounting profit of zero.
B) It is operating at the lowest point on its ATC curve.
C) It is highly regulated.
D) The price it charges is greater than the average cost of production.

9. Which of the following is the best example of a perfect competitor?

A) Pacific Gas and Electric Company
B) Dominos Pizza
C) Target
D) A farmers market

10. If price is below the AVC curve, which options (shut down temporarily, operate to minimize loss, or go-out-of-business) should a business consider?

A) Shut down now
B) Operate to minimize loss
C) Go-out-of-business
D) Depending on your expectations about future demand, either shut down or go-out-business

11. In perfect competition, if the price of the good is higher than the AVC, but lower than the ATC, and the business environment is optimistic, then a firm will

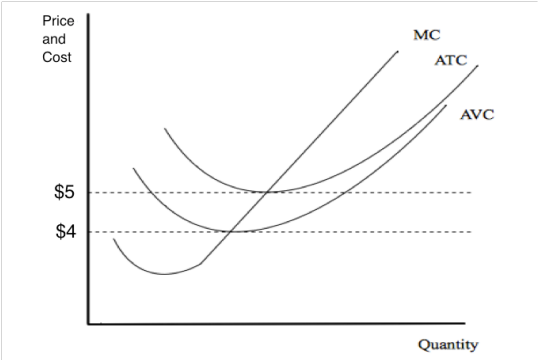
A) Go-out-of-business
B) Operate in the short run
C) Shut down immediately
D) Expand production in order to maximize profits

12. The demand curve for a perfectly competitive firm is
A) Perfectly inelastic
B) Perfectly elastic
C) Relatively inelastic
D) Relatively elastic

13. If a perfectly competitive firm is producing an output rate at which marginal cost is greater than price, the firm
A) is sustaining economic loss.
B) should increase its output level.
C) should reduce its output level.
D) will not be covering its fixed cost.

14. The MR curve for a price taker is
A) vertical
B) horizontal
C) downward sloping
D) upward sloping

15. According to the figure below, a firm would be suffering a loss but still be producing if the price is:



A) anywhere below $5.
B) below $5 but above $4.
C) anywhere above $4.
D) below $4.

16. Identify the profit maximizing OUTPUT level in the table.

A) 30
B) 50
C) 60
D) 40

Q	MC	MR
10	20	15
20	17	15
30	15	15
40	13	15
50	12	15
60	14	15
70	16	15
80	19	15

17. In markets characterized by competition we expect to find _____ and _____ compared to a monopoly.

a. lower prices; greater output
b. lower prices; lower output
c. higher prices; greater output
d. higher prices; lower output

18. Define *efficiency*: Efficiency in production occurs at the lowest point on ATC curve.

19. When you get home you throw your jacket over the back of a chair rather than hang the jacket in the closet. Is this potentially efficient? YES

20. _____ and _____ play a crucial role in signaling where to guide resources in markets.

a. Public goods; private goods
b. Entry; exit
c. Average total cost; average fixed cost

21. Where will a firm maximize profits in a competitive industry?

A) Where the ATC is at a minimum
B) Where the profit per unit is maximized
C) Where the extra revenue received from one more unit is just equal to the extra cost of producing one more unit
D) Where MR is maximized

22. Which of these reasons best describes why an economist may view losses as desirable in a perfectly competitive market?

A) Losses ensure we have losers in addition to winners in business, and hence balance.
B) Losses signal that there are too many firms in the industry relative to market demand.
C) Losses signal to the government that the market requires regulation.
D) Losses must mean that firms are not charging the profit maximizing price.

23. Sunk costs:

A) should be taken into consideration when making decisions about future production.
B) are costs that have been incurred as a result of past decisions.
C) cause the profit-maximizing rule to no longer be useful.
D) are included only in economic profits.

24. What is the best example of someone who doesn't understand sunk costs?

A) A person who pays twice as much for a new pair of shoes than they are worth
B) A student who laments how poorly they did on the second exam and, as a result, spends less time worrying about the third exam
C) An employee who steals from the cash register and therefore causes the business to lose money
D) Someone who obsesses about the future and forgets to focus on their past accomplishments

25. A company is currently producing 10 fog machines at an average total cost of $15. Given the table below, should the firm produce the 11th fog machine if the company can sell it for $20? YES or NO (circle answer)

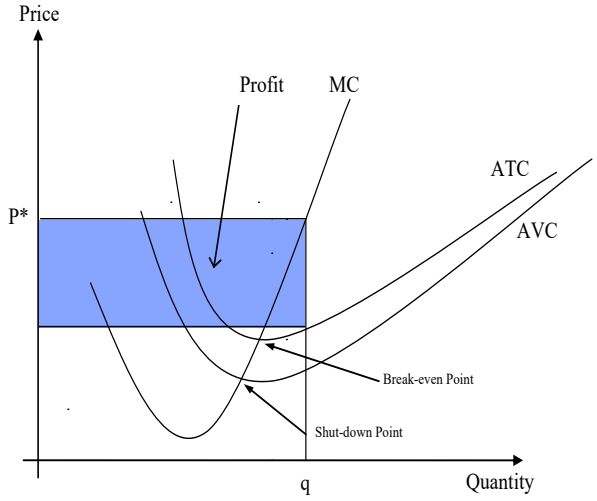
# of fog machines	Average cost	TC	MC
10	$15	$150	NA
11	$16	$176	$26

Answer: MR = $20, the MC of the 11th fog machine is $26 so NO is the answer.

26. Consider the production of donuts in the short run at Krispy Kreme donuts. In what follows, assume that capital is fixed in the short-run and that labor is variable. Also, assume that the production of donuts is such that the marginal productivity of labor increases initially, but then eventually decreases.

Draw Krispy Kreme's average total cost curve, average variable cost curve, average fixed cost curve and marginal cost curve. Be sure to carefully label all four curves as well as the x-axis and y-axis. On the diagram you made for part a., label the break-even point and the shutdown point. Suppose the price of donuts is above the minimum of the average total cost curve, on the diagram above, illustrate Krispy Kreme's profit maximizing level of output and their profits (or losses).

a.

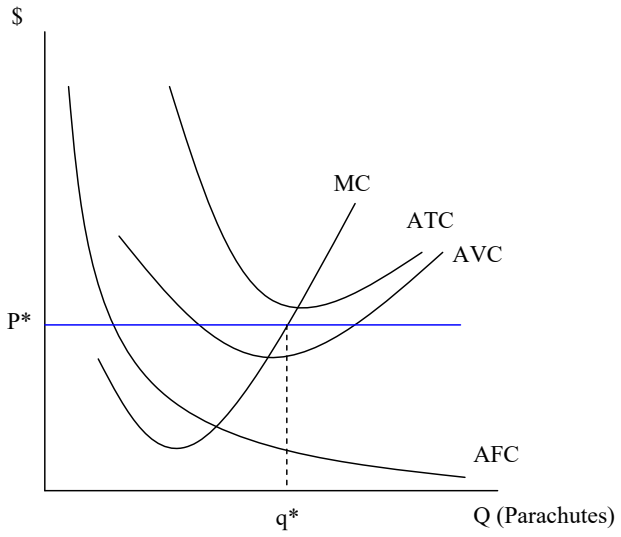


Explanation: Profit maximizing output is where P*= MC. The break-even point is the minimum of the ATC curve. The shutdown point is the minimum of the AVC curve. If price is above the minimum of the ATC curve, then Krispy Kreme is making positive profits. Profits equal total revenue minus cost. ($\pi = P \bullet Q - ATC \bullet Q$).

27. Consider the production of golden parachutes.
    a. On the same graph, plot a standard average fixed cost curve, average variable cost curve, average total cost curve and marginal cost curve for a firm in this market. Be sure to clearly label each curve along with the axes.
    b. If the market for parachutes is perfectly competitive, show the profit maximizing level of output given that at the equilibrium price of golden parachutes, p*, the firm is earning negative profits but still producing a positive number of parachutes.
    c. In words your mother could understand, explain why a firm would continue to produce output in the short run even if they were earning negative profits (if your mother is an economist, assume she's not). Your explanation should NOT make reference to your graph in part b.

Answers:

a. See below.
b. See below.
c. In the short run, firms have to pay for some inputs even if they don't produce anything. These are called fixed costs. Since firms have to pay these fixed costs even if they don't produce anything, they don't enter into firms' decisions about whether to produce. Instead, in the short run, firms will decide whether to produce based on whether they can cover their variable costs. In particular, firms will produce positive levels of output as long as their revenue is high enough to cover their variable costs (even if their revenues are not high enough to also cover their fixed costs). Thus, firms may continue to produce even if their profits are negative.



28. Suppose that the E. Gould Frisbee company used capital and labor to produce frisbees. In the short run, capital is fixed and labor is variable. Suppose that in the short run, the marginal cost of producing frisbees is given by $MC = Q^2$ (for Q > 0), and suppose that the average total cost curve is given by ATC = Q^2 / 3 (for Q > 0). In addition, suppose that p*=81.

a. How many fisbees should the E. Gould Frisbee company produce?

Answer: Profit maximization is where P*=MC. P*=81 and MC= Q^2. So Q^2= 81. Thus Q=9 or Q=-9, but since Q cannot be negative, Q=9.

b. At this level of production, what are the firm's profits?

Answer: Profits= Total Revenue-Total Cost. Total Revenue = P•Q and Total Cost= ATC•Q. So. (81•9)- (9^3/ 3)=729-243=$486.

c. Given the marginal cost curve above, what can we say about the marginal productivity of labor?

Answer: The marginal cost curve is the right half of a parabola thus marginal cost is increasing. This firm is displaying diminishing marginal returns.

29. Suppose the market for corn is perfectly competitive and in a long-run equilibrium. Assume that the demand for corn suddenly decreases.

a. Use a graph to illustrate what will happen to the equilibrium price and quantity of corn in the short run.

b. In the short run, what will happen to profits for firms in this market? Explain your answer in 2-3 lines.

c. In the long run, will firms enter or exit this market? Explain your answer in 1-2 lines.

d. On your graph for Part A show the effect of your answer to Part C on the equilibrium price and quantity of corn.

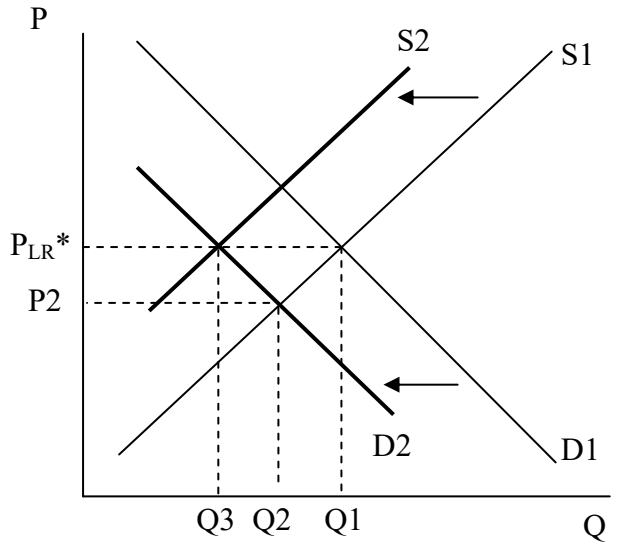
Answers:

a. See below. Demand will shift from D1 to D2. Equilibrium price will drop from P_{LR}* to P2, and equilibrium quantity will drop from Q1 to Q2.

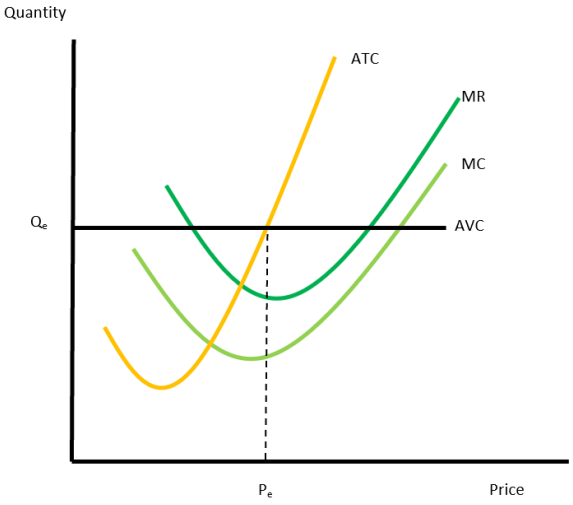
b. Since the market is initially in a long-run equilibrium (where all firms earn zero economic profit), a fall in the price of corn will mean that in the short run, firms in this market will earn negative profits.

c. Firms will exit since profits are negative.

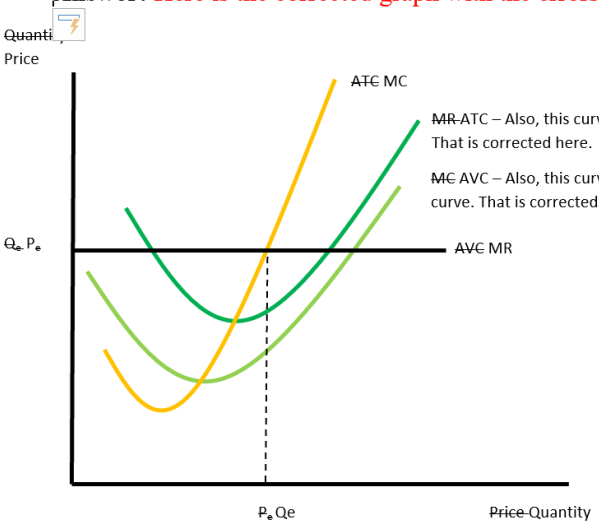
d. Thus, the supply curve will shift from S1 to S2 and the market will return to its initial long-run equilibrium price, P_{LR}*. In the long run, the equilibrium quantity will decrease to Q3.



30. Identify as many errors as you can in the following graph (there are 6). Assume the market is perfectly competitive.



Answer: Here is the corrected graph with the errors struck out.



31. Under perfect competition, what would happen to a firm that sets its price slightly above market price?

A. The firm would lose all its customers.
B. The firm could sell as much as it wanted in the market.
C. The firm would earn a profit, but revenue would be lower.
D. The firm would earn a lower profit that other firms, but the level of reduction would depend on the elasticity of demand.

32. Profit maximization occurs when

A. a firm expands output until marginal revenue exceeds marginal cost.
B. a firm expands output until marginal revenue is equal to marginal cost.
C. the price in the market is equal to the firm's average total cost.
D. total costs equal total revenue.

33. At the current level of output for a perfectly competitive firm, the following data exist:

Price = $20
Marginal cost = $6
Average variable cost = $10
Average total cost = $13

What should this firm do?

A. The firm should lower the price.
B. The firm should stay at the same level of output.
C. The firm should shut down.
D. The firm should increase output.
E. The firm should decrease output.

34. What should the firm do if there is no possible output where the price would at least be equal to average variable costs?

A. The firm should lower the price.
B. The firm should raise the price.
C. The firm should shut down in the short run
D. The firm should increase production.
E. The firm should decrease production.

35. When talking about economic profits in a perfectly competitive market, the difference between the long run and the short run is that in the short run, firms in the market

A. always earn positive economic profits, but in the long run, firms have zero economic profits.
B. always earn negative economic profits, but in the long run, firms have zero economic profits.
C. can earn positive or negative economic profits, but in the long run, firms have negative economic profits.
D. can earn negative economic profits, but in the long run, firms have positive economic profits.
E. can earn positive or negative economic profits, but in the long run, firms have zero economic profits.