

PRACTICE FINAL EXAM

Time for exam: **2.5 hours**

Name: _____

FIC student number _____

Mark _____/

INSTRUCTIONS:

1. No electronic devices other than a non-programmable, non-graphing calculator.
2. No sharing of calculators.
3. Use at least two decimal places in all calculations with non-integers.
4. Do not leave answers as fractions.
5. Show your work in the spaces provided for full marks.
6. Cell phones must be turned OFF and not ANYWHERE near you.
7. No writing on your desk.
8. No obtaining information from any source other than your head.

Place Answers to the Multiple Choice Questions in the Chart Below

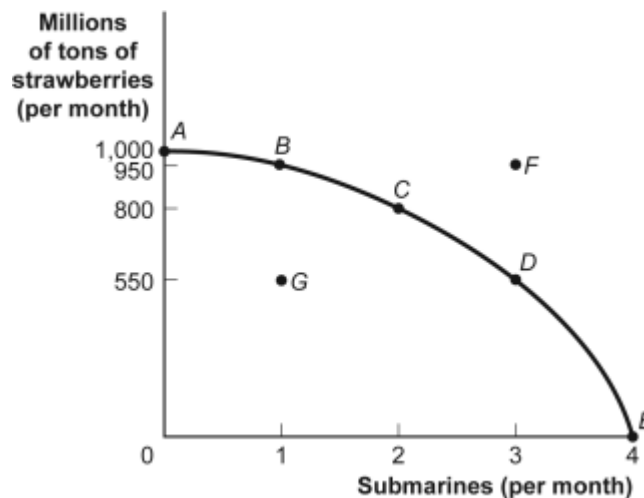
Question	A	B	C	D
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Multiple Choice Question Section:

1. If resources are “scarce” it means that they:
☒ A) cannot provide enough goods or services to satisfy all human material wants and needs.
B) have no opportunity cost.
C) are probably not valued by consumers.
D) have an unlimited supply.
2. The *best* example of making a choice at the margin is:
A) buying a new computer.
B) quitting your job.
☒ C) eating another slice of pizza.
D) attending college.

Use the following to answer question 3:

Figure: Strawberries and Submarines

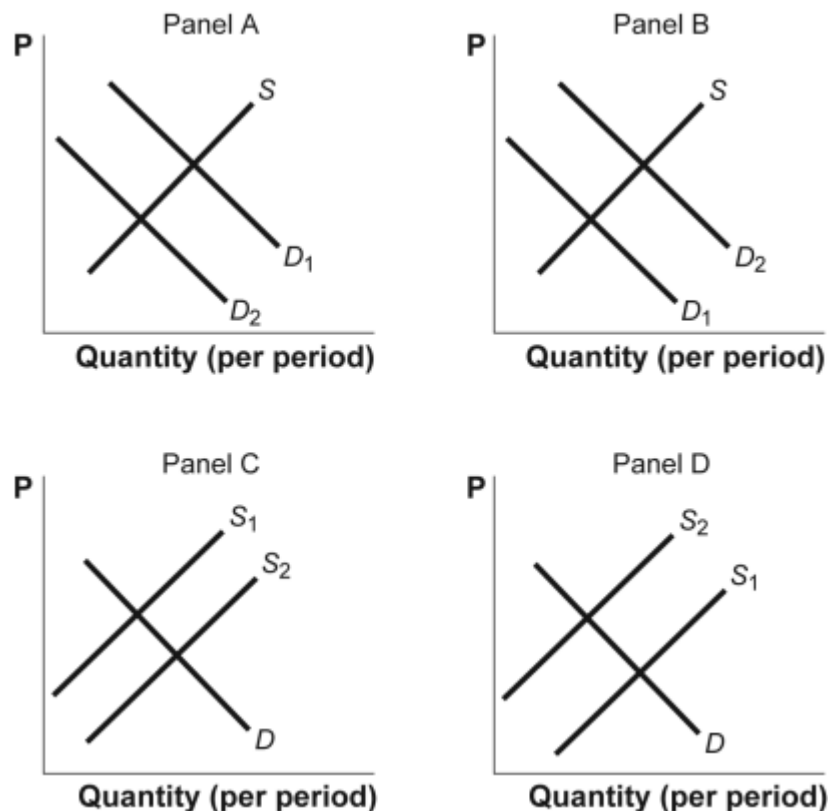


3. (Figure: Strawberries and Submarines) Suppose the economy is operating at point G. This implies that:
A) the economy can move to a point such as C only if it improves its technology.
☒ B) the economy is experiencing unemployment and/or inefficient allocation of resources.
C) the economy lacks the resources to achieve a combination such as C.
D) people in this economy don't really like strawberries and submarines.

4. An increase in demand, all other things unchanged, will result in a(n) _____ in equilibrium price and a(n) _____ in equilibrium quantity.
- A) increase; increase
 - B) decrease; decrease
 - C) decrease; increase
 - D) increase; decrease

Use the following to answer question 5:

Figure: Shifts in Demand and Supply IV



5. (Figure: Shifts in Demand and Supply IV) The figure shows how supply and demand might shift in response to specific events. Suppose the price of lumber falls dramatically. Which panel best describes how this will affect the market for houses?
- A) Panel A
 - B) Panel B
 - C) Panel C
 - D) Panel D

Table: Willingness to Pay for Peanuts

Consumer	Willingness to Pay in Dollars
Alvin	\$5
Theodore	3
Simon	6
Dave	2
George	10

6. (Table: Willingness to Pay for Peanuts) If the price of a bag of peanuts is \$4, what is the value of George's consumer surplus?
- A) \$4
 - B) \$3
 - ☒ C) \$6
 - D) \$10
7. Suppose the market demand for Good Y is given by the equation $Q_d = 100 - 2P$, where P is the price per unit and Q_d represents the number of units. If the market price of Good Y is \$40, then the quantity demanded would equal _____ and the value of consumer surplus will be _____.
- ☒ A) 20 units; \$100
 - B) 100 units; \$20
 - C) 40 units; \$200
 - D) 2 units; \$40
8. If government decides to control the amount of a good allowed into a market, this effectively will:
- A) result in an increase in efficiency in the market.
 - ☒ B) increase incentives for market participants to engage in illegal or black market activities.
 - C) result in the equilibrium quantity being produced.
 - D) lead to more of the good being produced.
9. A binding price floor causes:
- A) a shortage in the market.
 - ☒ B) a surplus in the market.
 - C) wasted resources.
 - ☒ D) a surplus in the market and wasted resources.

10. The percentage change in quantity demanded of one good or service divided by the percentage change in the price of a related good or service is:
- A) price elasticity of demand.
 - B) quantity elasticity of demand.
 - C) income elasticity of demand.
 - ☒ D) cross-price elasticity of demand.
11. Raina consumes 100% more mechanical pencils when the price of felt-tip pens increases by 50%. For Raina, pencils and pens are _____ and the cross-price elasticity of demand is _____.
- A) complements; -2
 - B) substitutes; -2
 - ☒ C) complements; 2
 - D) substitutes; 2
12. If a tax system is well designed, it must be true that:
- A) it maximizes efficiency.
 - ☒ B) it maximizes fairness.
 - ☒ C) efficiency can be improved only by making the system less fair.
 - D) it maximizes efficiency and equity.
13. Suppose a local floral shop has explicit costs of \$200,000 per year and implicit costs of \$50,000 per year. If the store earned an economic profit of \$50,000 last year, this means that the store's accounting profit equaled:
- A) \$10,000.
 - B) \$50,000.
 - ☒ C) \$100,000.
 - D) \$200,000.

Use the following to answer question 14:

Table: Denise's Consumption of Coffee and Gasoline

Assume Denise's spending on coffee and gasoline is \$200 each month and that each of the consumption bundles in the table are on her budget line.

Consumption Bundle	Quantity of Coffee in Consumption Bundle	Total Utility from Coffee Consumption	Quantity of Gasoline in Consumption Bundle	Total Utility from Gasoline in Consumption Bundle
A	200	140 utils	0	0 utils
B	150	120 utils	25	40 utils
C	100	90 utils	50	55 utils
D	50	50 utils	75	65 utils
E	0	0 utils	100	70 utils

14. (Table: Denise's Consumption of Coffee and Gasoline) Suppose Denise initially chooses consumption bundle A. She can increase her total utility by:

- ☒ A) consuming more gasoline and less coffee.
- ☐ B) consuming more coffee and less gasoline.
- ☐ C) not consuming more coffee or gasoline.
- ☐ D) consuming more coffee and more gasoline.

15. The marginal cost of producing an additional basket of tomatoes is \$5.00. The consumer is willing to pay a maximum of \$9.00 for an additional basket. A farmer sells a basket of tomatoes for \$6.00 each. The farmer receives a producer surplus from selling an additional basket of tomatoes equal to

- A) \$9.00.
- B) \$3.00.
- ☒ C) \$1.00.
- D) \$4.00.

16. When the marginal product curve is _____, the marginal cost curve is falling. When the average product curve is _____, the average variable cost curve is falling. Maximum *MP* occurs at the same output as _____. Maximum *AP* occurs at the same output as _____.

- A) falling; falling; minimum *MC*; minimum *AVC*
- B) falling; falling; maximum *MC*; maximum *AVC*
- C) rising; rising; maximum *MC*; maximum *AVC*
- ☒ D) rising; rising; minimum *MC*; minimum *AVC*

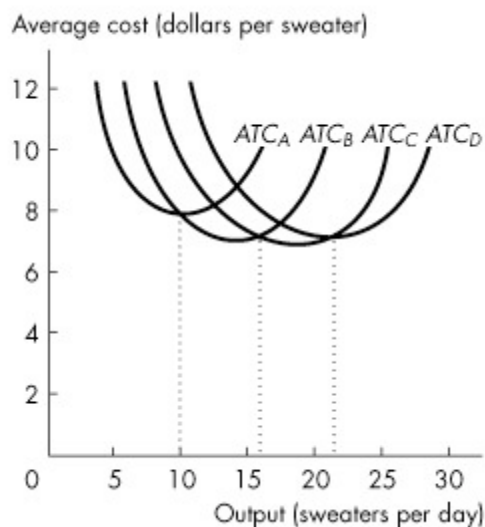
17. Which of the following quotes *best* illustrates the idea of fixed cost?

- A) "If I double the number of workers and trucks, I get only 80 percent more packages delivered."
- B) "As we increase output, per-unit costs fall."
- C) "My primary source of overhead cost is the cost per month for the head office."
- D) "If I need to, I can negotiate more overtime with my work force to meet unexpected orders."

18. Total cost is \$20 at 4 units of output and \$36 at 6 units of output. Between 4 and 6 units of output, marginal cost $\$8$

- A) is equal to average variable cost.
- B) is less than average total cost.
- C) is equal to average total cost.
- D) is greater than average total cost.

Use the figure below to answer question 19. **Figure 19**



19. Refer to Figure 19, which illustrates the short-run average total cost curves for four different plant sizes. Which curve represents the average total cost for the largest of the four plant sizes?

- A) ~~ATCA~~
- B) ~~ATCB~~
- C) ~~ATCC~~
- D) ATCD

20. Diminishing returns to labour _____ occur as the quantity of capital increases because for a given quantity of _____ each additional unit of _____ will result in _____ incremental amounts of output.

- A) do; capital; labour; smaller
- B) ☒ do not; labour; capital; greater
- C) ☒ do not; labour; capital; smaller
- D) ☒ do; labour; capital; smaller

21. If a profit-maximizing firm in a perfectly competitive market is making an economic profit, then it must be producing a level of output where

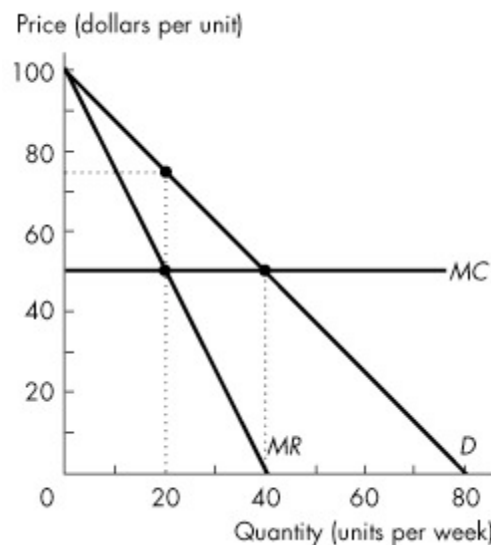
- A) ☒ marginal cost is greater than average total cost.
- B) ☒ price is greater than marginal revenue.
- C) ☒ average total cost is greater than marginal cost.
- D) ☒ price is greater than marginal cost.

$P > ATC$
Profit max $P = MC$
So $P = MC > ATC$

22. A perfectly competitive market is in short-run equilibrium with price below average total cost. Which one of the following is not a prediction of the long-run consequences of such a situation?

- A) Firms will exit the market.
- B) ☒ Economic profit will be zero.
- C) ☒ Market output will increase.
- D) ☒ Price will rise.

Use the figure below to answer the following questions. **Figure 23**



23. Refer to Figure 23. If this market were perfectly competitive, the output level would exceed the single-price monopoly output level by

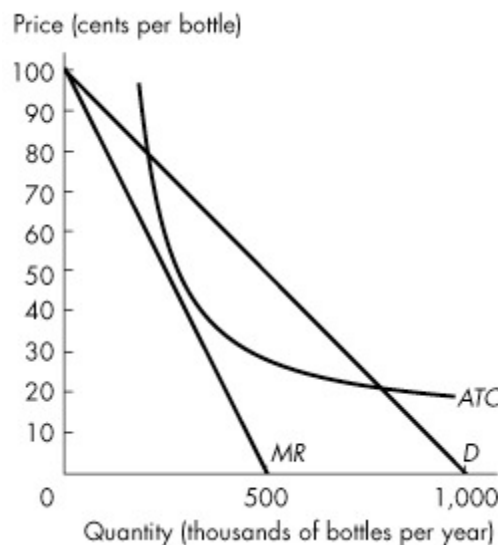
- A) 40 units.
- B) zero. The perfectly competitive firm and the single-price monopoly produce the same quantity because marginal cost is constant.
- C) 30 units.
- ✓ D) 20 units.

24. Which one of the following is *true* for a single-price monopolist but not for a perfectly competitive firm?

- A) The firm maximizes profit by setting marginal cost equal to marginal revenue.
- B) The firm is a price-taker.
- C) The firm's marginal cost is less than price.
- D) The firm can sell any level of output at any price it sets.

Use the information below to answer the following questions. Figure 25

Cascade Springs Inc. is a natural monopoly that bottles water from a spring high in the Rocky Mountains. The total fixed cost it incurs is \$80,000, and its marginal cost is 10 cents a bottle. The demand curve for Cascade Springs bottled water is shown in the following figure



25. Refer to Figure 25 Suppose the industry is unregulated. In this case, output is

- A) 600,000 bottles per year.
- B) 800,000 bottles per year.
- C) 450,000 bottles per year.
- D) 700,000 bottles per year.

*****Questions 26 – 29 may have more than one correct answer. You must select all of the correct answers and none of the incorrect answers to get the mark.*****

26. ***Ted and Mary both produce muffins and cookies. Both work for 8 hours per day. If Ted has a comparative advantage over Mary in production of cookies, which of the following statements is TRUE?
- A) Ted can make more cookies than Mary in an 8 hour day.
 - B) Ted produces cookies with a lower opportunity cost than Mary.
 - C) Ted gives up fewer muffins than Mary when producing cookies.
 - D) Ted would be able to decrease his opportunity costs per cookie by specializing in cookie production.
27. ***Which of the following are positive statements?
- A) It was 25°C at the beach today.
 - B) Lemonade tastes better than apple juice on a hot day.
 - C) GDP growth will improve in the next quarter.
 - D) Unemployment is lower this year than last year.
28. ***Which of the following statements about elasticity is/are true?
- A) The price elasticity of supply will be greater when measured over a longer time period.
 - B) The price elasticity of demand for a good will be greater if the good has many substitutes.
 - C) If demand is more elastic than supply consumers will pay more of the tax incidence than producers.
 - D) The price elasticity of supply will be greater for luxury goods than for necessities.
29. ***Which of the following statements about average total costs is or are true?
- A) Short run average total costs will always be greater than or equal to long run average total costs.
 - B) Long run average total costs will decrease when a firm is experiencing increasing returns to scale.
 - C) The long run average total cost curve will shift right when a firm acquires more capital.
 - D) As long as the marginal cost curve is above the short run average total cost curve the short run average total costs must be increasing.

Short Answer Section: ALL answers must be in 2 decimal places (e.g. 0.1234 = 0.12)

30. Consider how the following events would affect the market for potatoes. For each event indicate for both demand and supply whether there would be a shift left, shift right, or no change. Mark with an X. Each event should have two X's, one for demand and one for supply.

- A) The price of carrots, a substitute in production, decreases.
- B) The price of rice, a substitute in consumption, decreases.
- C) The population increases, but the new people do not like potatoes.
- D) Potato farmers learn that the price of potatoes is going to increase next month.

	D shift left	D shift right	D no change	S shift left	S shift right	S no change
a)						
b)						
c)						
d)						

31. The following table shows the production possibilities for Farmer Fred:

	Potatoes	Carrots
A	1000	0
B	700	200
C	450	500
D	250	900
E	100	1400
F	0	2000

- a) What is Fred's opportunity cost *per potato* if he starts at point D and wants to produce more potatoes?

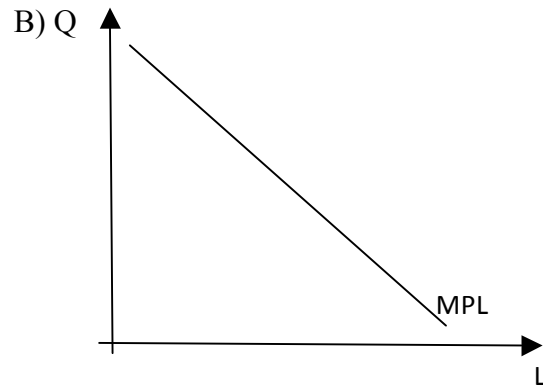
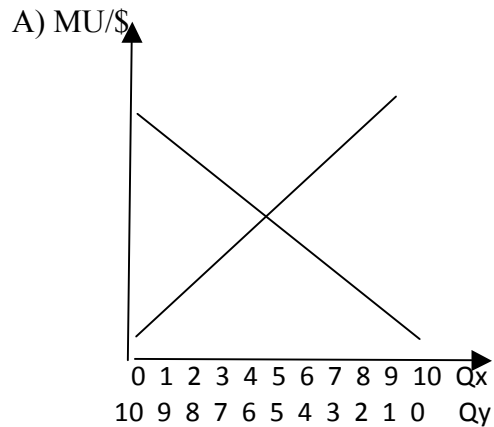
Opportunity cost = _____

- b) What is Fred's opportunity cost *per carrot* if he starts at point B and wants to produce more carrots?

Opportunity cost = _____

32. Use the diagrams to answer the following questions. *To answer you can either show a line, a point, or shade in an area. If the answer is zero or no effect leave the diagram blank.*

- Show what happens if there is a decrease in price of good X
- Show what happens if there is a decrease in the fixed inputs.

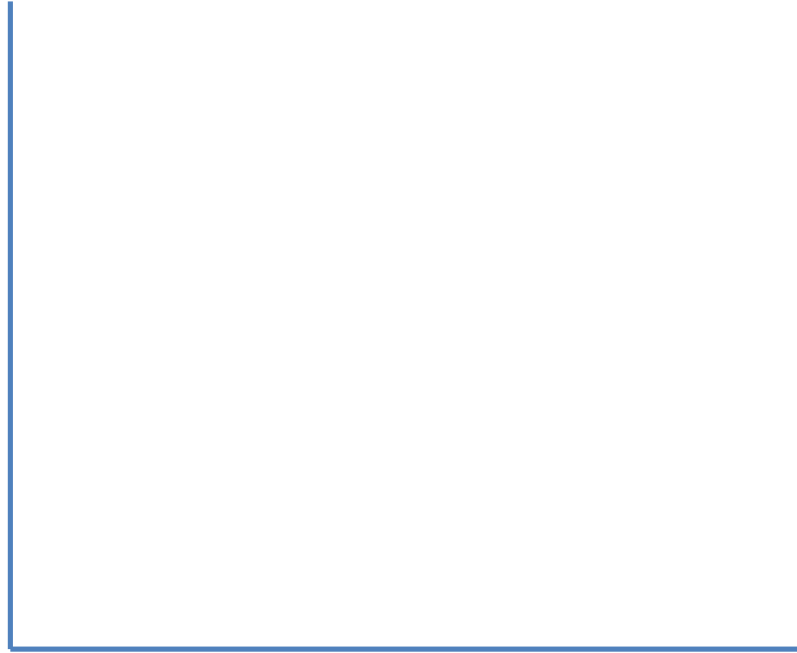


- Draw a demand and supply curve. Assuming the market is at the equilibrium shade in the area that would be the consumers' *total expenditure*.
- Draw a demand and supply curve. Assuming the market is at the equilibrium, then there is a quota added to the market, shade in the area that would be the *change in producer surplus*.



33. Demand for giant lollipops is given by $P = 20 - 0.01Q$ and supply is given by $MC = 8 = ATC$.

You may use this diagram for your calculations but the diagram will not be marked.

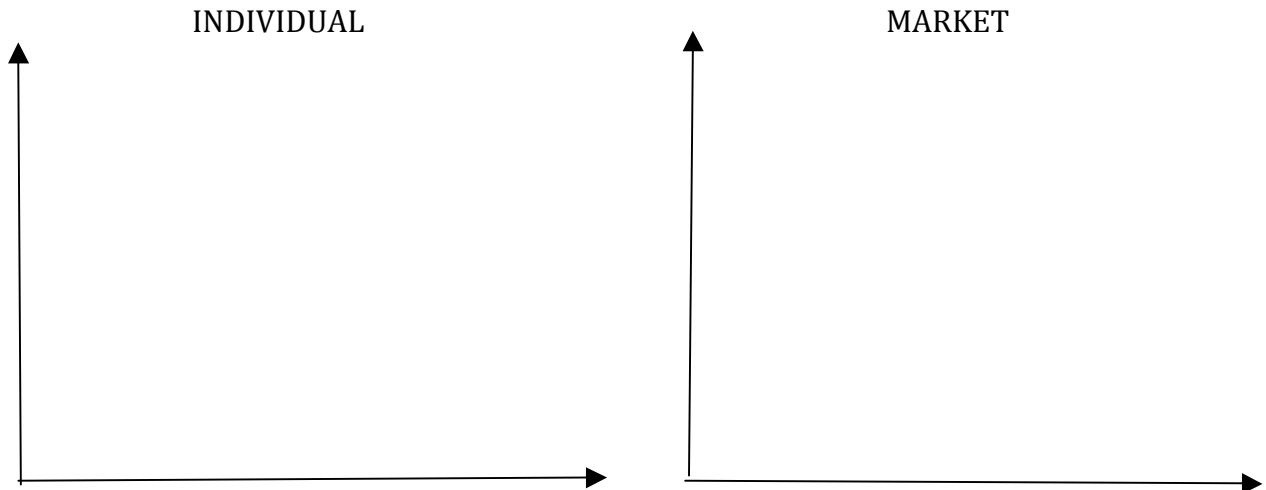


- A) If this market is controlled by a single-price monopolist what will be the equilibrium price and quantity?
- B) If this market is controlled by a single-price monopolist what will be the total surplus?
- C) If this market is controlled by a single-price monopolist how much economic profit is the monopolist earning?

- D) If this market is controlled by a monopolist and they are able to perfectly price discriminate how much economic profit is the monopolist earning?
- E) If this market is perfectly competitive what will the equilibrium price and quantity be?
- F) If this market is perfectly competitive what will be the total surplus?
- G) If this market is perfectly competitive how much economic profit is each producer earning?
- H) If this market is in long run equilibrium, what is the fixed costs equal to?
- I) If this market is perfectly competitive and the government imposes a tax of \$2 per lollipop what is the new *total surplus* and how much is the *consumer incidence*?

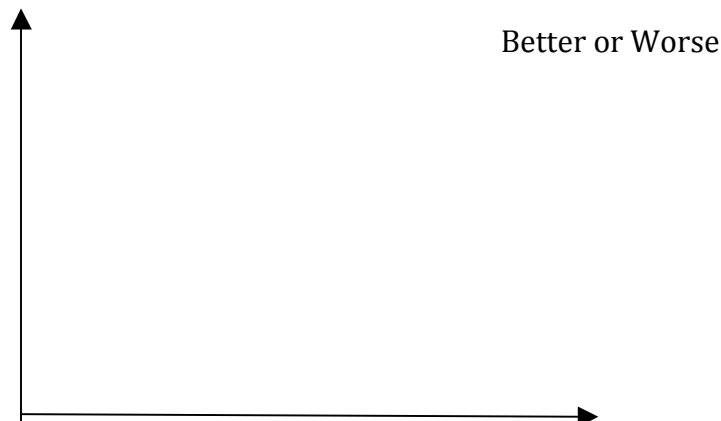
34. Blueberries are a common agricultural product in British Columbia. For a typical blueberry farm, the minimum average total cost occurs when the farm produces 400kg. The average total cost at 400kg is \$1.60 per kg. The shut down price is considered to be \$1.20 per kg. If $P = \$1.20$ per kg a farm will produce 300kg in the short run.

- a) Draw the MC, ATC, and AVC curves for an individual firm in the graph on the left and the supply curve for the blue berry industry on the right. Assume that the situation is in the long run equilibrium and that there are 100 farmers in the market.

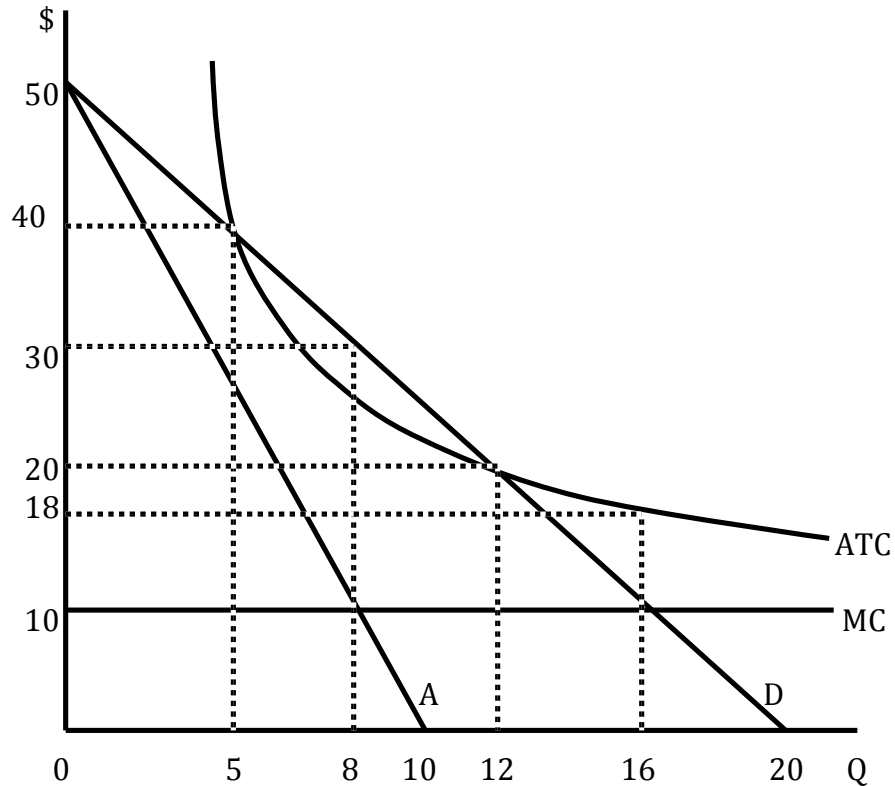


- b) Suppose that next year a new watering technology becomes available which lowers the minimum average total cost to \$1.30 per kg at a production of 600kg. Assume that all the farmers growing blueberries adopt this technology.

- i. What will the new price be in the long run? $P = \underline{\hspace{2cm}}$
- ii. Show the changes in your market from the short run to the new long run market equilibrium in the graph below. Will this make consumers better or worse off? Circle the answer and use your diagram to prove it.



35. Consider the following diagram for a natural monopoly.



- A) What does line A represent?
- B) What quantity would a single-price monopolist choose?
- C) How much deadweight loss would a single-price monopolist create?
- D) If the government regulates the price such that total surplus is maximized what price would the government set and what would be the quantity purchased by consumers? What would the government have to do in order for the monopolist to continue production at this price?

E) If the government regulates the monopolist such that the monopolist *breaks even* what would be the price and quantity? How much deadweight loss would there be? What is this type of price control called?

F) Suppose that many other firms enter this market, now consumers have many producers to choose from and cannot tell the difference between each firm's product. How will this affect the demand curve the original firm now faces? What would be the new market price and quantity?