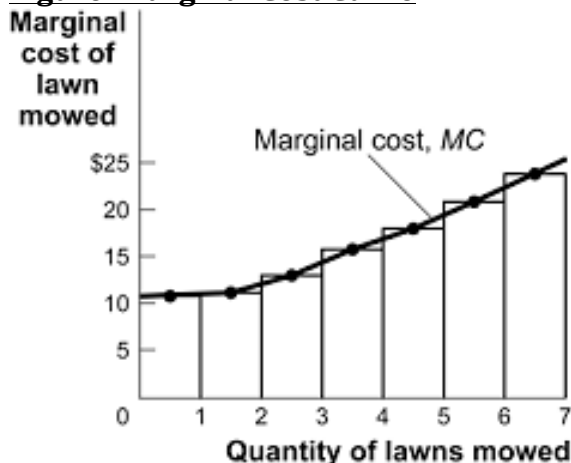


## Chapter 9 Assignment

1. The implicit cost of capital is:
  - A) the expense associated with leasing machines.
  - B) the expense associated with buying machines.
  - ☒ C) the opportunity cost of capital used by a business.
  - D) irrelevant for determining economic profit.
  
2. Jacquelyn is a student at a Queen's university. Which of the following is NOT an example of an explicit cost of her attending university?
  - A) tuition
  - B) textbooks
  - ☒ C) the salary that she could have earned working full time
  - D) computer lab fees
  
3. Sarah's accountant tells her that she made a profit of \$43,002 running a pottery studio in Halifax. Sarah's husband—an economist—claims Sarah lost \$43,002 running her pottery studio. This means her husband is claiming that she incurred \_\_\_\_\_ in \_\_\_\_\_ costs.
  - ☒ A) \$86,004; implicit
  - ☒ B) \$43,002; implicit
  - ☒ C) \$43,002; explicit
  - D) \$86,004; explicit

Use the following to answer question 4.

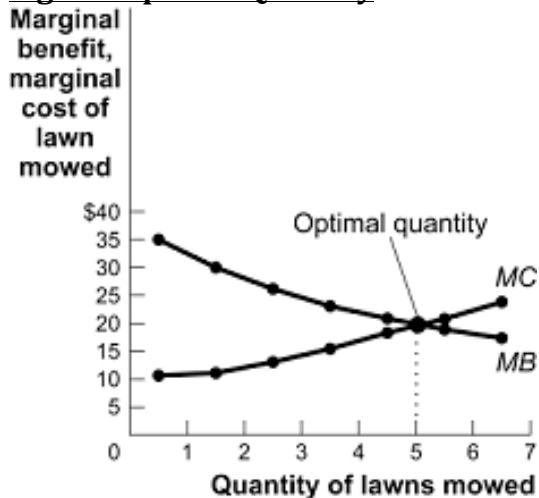
**Figure: Marginal Cost Curve**



4. (Figure: Marginal Cost Curve) Use the marginal cost curve in the accompanying figure to determine that the approximate total cost of mowing 4 lawns is:
  - A) \$10.
  - B) \$15.
  - ☒ C) \$50.
  - D) \$100.

5. Tara notices that one hour of studying causes her economics grade to improve by 11 points, while the second hour increases her average by 7 points, the third hour yields a 4-point gain and the fourth hour only 1 point. This means that the marginal \_\_\_\_ of studying decreases over time.
- A) cost
  - ☒ B) benefit
  - C) opportunity cost
  - D) time

**Figure: Optimal Quantity**



6. (Figure: Optimal Quantity) If the cost of producing lawn mowing increased, the \_\_\_\_ curve in the accompanying figure would shift to the \_\_\_\_ and Felix's total net gain would \_\_\_\_.
- A) marginal benefit; right; increase
  - B) marginal cost; right; increase
  - C) marginal benefit; left; decrease
  - ☒ D) marginal cost; left; decrease
7. On Saturday night you plan to attend a movie. You buy a ticket for \$7 and then lose it. According to marginal analysis and the idea of sunk costs, you should:
- A) go home.
  - ☒ B) buy another ticket and attend the movie.
  - ☒ C) buy another ticket and attend the movie only if your marginal benefit of seeing the movie is greater than \$14.
  - D) do none of the above.
8. Sunk costs:
- ☒ A) affect economic profit.
  - ☒ B) are the losses associated with failed business ventures.
  - C) are an important component of marginal analysis.
  - D) are all of the above.

9. In Southern Ontario, the demand for real estate has been increasing rapidly for years. Together with early frost that kills grape vines, this has led many grape farm owners to sell their land to real estate developers. Because of the frost and the land demand, the implicit cost of capital is increasing in Southern Ontario's grape farms.
- ☒ A) True  
☐ B) False
10. In cities, a mile of road lane may cost \$30 million or more, while in rural areas a mile of road lane may only cost \$5 million. This means there should be more road lanes in rural areas than in urban areas.
- ☐ A) True  
☒ B) False
11. Any expense that is non-recoverable is considered a sunk cost.
- ☒ A) True  
☐ B) False
12. David pays \$6,000 per month in rent to operate a Subway sandwich shop in downtown Toronto's CN Tower. He also pays \$10,000 per month in wages, \$5,000 per month in food and supplies, and \$1,000 per month in insurance. All of his costs of production can change, except his insurance and rent. David's sunk costs equal \$9,000 per month.
- ☐ A) True  
☒ B) False
13. When a decision maker chooses the option leading to the outcome that he or she most prefers, he or she has made a \_\_\_\_\_ decision.
- ☐ A) irrational  
☒ B) rational  
☐ C) profit-maximizing  
☐ D) loss-minimizing
14. The "good enough" method of decision making is also called:
- ☐ A) utility-maximizing behaviour.  
☒ B) profit-maximizing behaviour.  
☐ C) bounded rationality.  
☒ D) irrational decision making.
15. The willingness to sacrifice some economic payoff in order to avoid a potential loss is:
- ☐ A) irrational behaviour.  
☐ B) bounded rationality.  
☒ C) the result of a concern about fairness.  
☐ D) risk aversion.

16. The habit of mentally assigning dollars to different accounts so that some dollars are worth more than others is:
- A) status quo bias.
  - B) bounded rationality.
  - C) loss aversion.
  - D) ☒ mental accounting.
17. A person who is oversensitive to loss and is unwilling to recognize the loss and move on suffers from
- A) ☒ loss aversion.
  - B) risk aversion.
  - C) status quo bias.
  - D) mental accounting.
18. The tendency to avoid making a decision is:
- A) ☒ status quo bias.
  - B) bounded rationality
  - C) loss aversion.
  - D) mental accounting.
19. Which of the following is a systematic mistake that leads to irrational decisions?
- A) risk aversion
  - B) bounded rationality
  - C) maximizing profit rather than minimizing costs
  - D) ☒ overconfidence
20. Jane quit her job at Telus where she earned \$36,000 a year. She cashed in \$40,000 in corporate bonds that earned 10% interest annually to buy a mini-bus. Jane has decided to buy the mini-bus and set up a commuter service between Maple Ridge and Vancouver. There are 300 people who will pay \$800 a year each for the commuter service; \$650 from each person goes for gas, maintenance, insurance, depreciation, etc.
- (a) What are Jane's total revenues per year? \$240000
- (b) What are Jane's explicit costs per year? \$195000
- (c) What is Jane's accounting profit per year? \$45000
- (d) List two important implicit costs per year that Jane has not included.
1. The job at Telus \$36000
  2. The interest of banking  $\$40000 \cdot 10\% = \$4000$
- (e) What is Jane's economic profit per year? \$5000

21. Ming owns a three-bedroom house that he rents out for \$40,000 per year. Assume that he spends \$5,000 per year to maintain the house and that he could sell it for \$1,000,000 at any time during the year.

7. How much accounting profit will Ming earn by renting out the house for this current year?

Answer: \$35000

8. Suppose the interest rate is 5%. What is Ming's economic profit from owning this house and renting it out?

\$5000

Answer: -\$5000

9. Suppose the interest rate is 3%. What is Ming's economic profit from owning this house and renting it out?

\$30000

Answer: \$5000

22. For the following scenario calculate the accounting profit and the economic profit:

The owner of Crested Butte Ski Rentals purchased \$150 000 worth of skis for rentals. The revenue from the rentals is \$300 000. Utilities are \$20 000 per year and wages are \$50 000. There is an outstanding loan, and the interest owing per year is \$12 000. If the skis had not been purchased, the owner could earn \$11 500 in annual interest income on the \$150 000 otherwise used to buy the skis. The owner was offered another managerial position at another ski shop for \$40 000 a year.

<u>Accounting Profit</u>	<u>Economic Profit</u>
$\$300000 - \$20000 - \$50000 - \$12000 - \$15000$	$\$68000 - \$11500 - \$40000$
$= \$28000 - \$62000 - \$15000$	$= \$56500 - \$40000$
$= \$218000 - \$150000$	$= \$16500$
$= \$68000$	

Answer = ~~\$218000~~ \$68000

Answer = \$16500

What should the owner do?

run the ski rental business

23. In order to make extra money, Linda gives haircuts on Saturdays. There are no significant costs to Linda in giving haircuts other than her own time. As she gives more haircuts, Linda forgoes doing successively more and more valuable things with her Saturday hours. The table below contains data for the cost and benefit of Linda's haircut business.

Fill in the following table and determine Linda's optimal quantity of haircuts.

Haircuts	Total Cost	Marginal Cost	Total Benefit	Marginal Benefit	Total Net Gain	Marginal Net Gain
0	0		0		0	
1	5	5	30	30	25	25
2	10	5	55	25	45	10
3	20	10	70	15	50	5
4	40	20	85	15	45	-5
5	70	30	100	15	30	-15

Optimal quantity = 3

24. You and a friend agree to meet at Starbucks for a coffee at 2:00 in the afternoon. You arrive on time but your friend calls and says he'll be 20 minutes late. You decide that you are willing to wait a maximum of 20 minutes. After 20 minutes your friend has not shown up, so you call him and he says sorry but he'll be another 5 minutes. What would you do? What would you call the time that you have already spent waiting for your friend? What principle does this scenario illustrate?

You would wait the extra 5 minutes because the first 20 minutes is now a sunk cost.

25. In two weeks, a popular music group is coming to campus, and you anticipate strong demand. You rush to the box office and buy 50 tickets for \$25 each. Two hours before the concert you stand outside and sell 30 tickets at \$40. An hour later, you sell 10 tickets for \$25 each. Just a few minutes before the concert, a group walks up and offers to buy the last 10 tickets at \$20 each.

a. Does it make sense to make the last sale? Why or why not?

Yes, because the purchase cost is a sunk cost

b. What is your marginal cost for the last sale?

0

c. What is your marginal revenue from the last sale?

\$20

d. What is your profit at the end of the day?

\$190

26. In each of the following scenarios, explain whether the decision is rational or irrational and use vocabulary from the chapter to describe the behavior.

A) Kookie's best friend likes to give her gift cards that Kookie can use at her favourite stores. Kookie, however, often forgets to use the cards or loses them even though she is very careful with her own cash.

spending dollar unequally

This is irrational because Kookie is using mental accounting and not treating all dollar equally

B) The Western Canada Theatre offers "Pay What You Can" movie days so that anyone can watch a movie at the price they can afford. The customers pay any price they want, although the theatre displays the usual price as a point of comparison.

The theater is being rational because they will attract more customers and most customers will feel obligated to pay a fair price

C) Kimora has planned a trip to Florida during reading week in February. She has several school projects due after her return. Rather than do them before leaving, she decides to take her books with her and plans to complete her projects while on her trip.

Kimora is being irrational because the opportunity cost of her time will be even higher in Florida than at home. She is being unrealistic about her future behavior.