

PRACTICE EXERCISES FOR CHAPTER 9

The exercises below are designed to facilitate your understanding of the mathematical and graphical concepts relevant to Chapter 9. Use your lecture notes and textbook to complete the problems and THEN “grade” yourself using my solutions, which are provided on the last few pages of this packet. **Remember, completing this exercise set is only a PART of the exam preparation process in this course!**

Use this table to answer the questions below.

Output	Price	Total Cost	Marginal Cost	Total Revenue	Marginal Revenue
0	\$1,000	\$500	NA		NA
1	\$600	\$520			
2	\$500	\$580			
3	\$400	\$700			
4	\$300	\$1,000			
5	\$200	\$1,500			

1. Compute marginal cost in the table above.
2. Compute total revenue in the table above.
3. Compute marginal revenue in the table above.
4. How many units of output will the profit-maximizing monopolist produce?
5. What price per unit will the profit-maximizing monopolist charge?
6. Total profit for the monopolist would be _____.

Consider the following information for a monopoly firm that produces motorcycles.

Fill in the blanks as needed to answer the questions below.

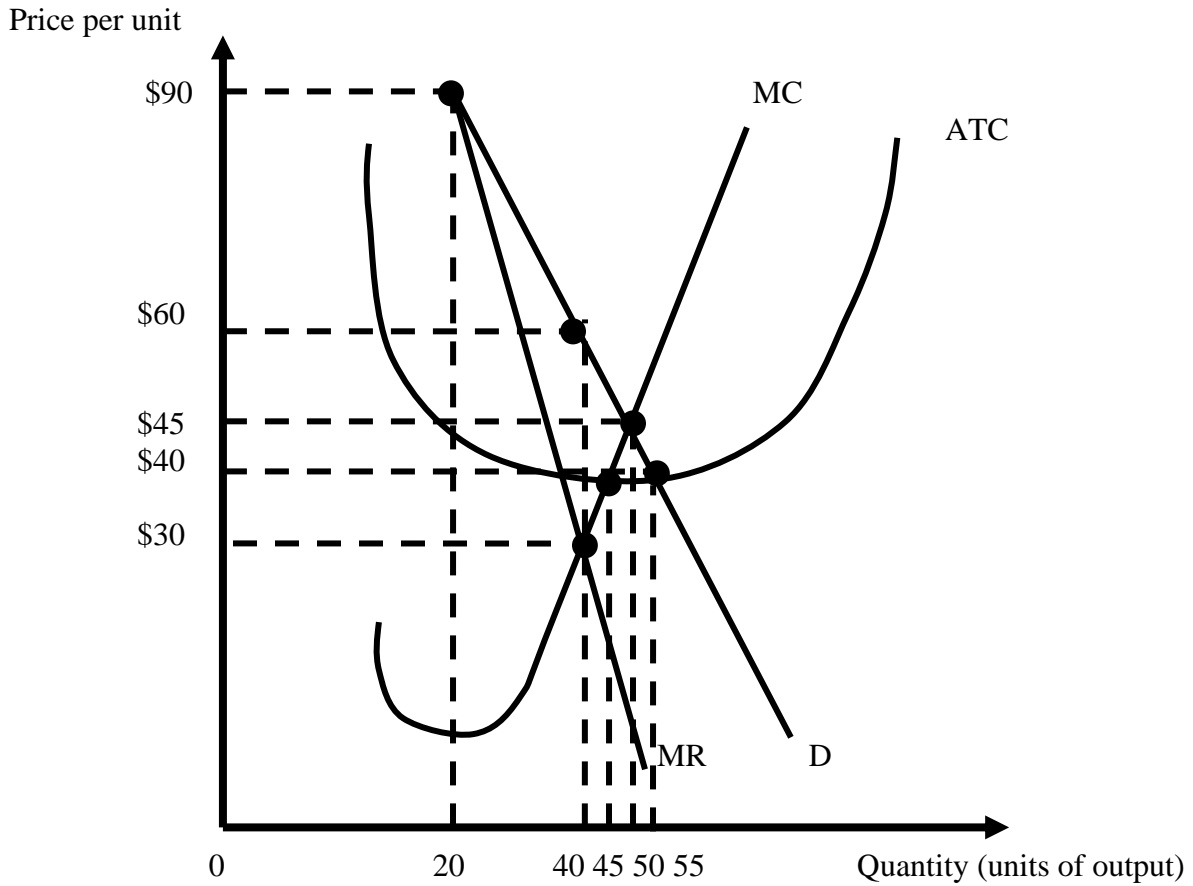
Output (custom motorcycles per month)	0	1	2	3	4	5
Price per custom motorcycle	\$30,000	\$25,000	\$20,000	\$15,000	\$10,000	\$5,000
Total Revenue per month						
Total Cost per month	\$10,000	\$12,000	\$14,000	\$18,000	\$23,000	\$30,000
Total Profit per month						

7. If this motorcycle producer wanted to maximize profits/minimize losses, how many motorcycles would he produce per month?

8. What price would be charged per motorcycle?

9. How large would the firm's profit/loss be?

Use this graph of a monopoly firm to answer the questions below.



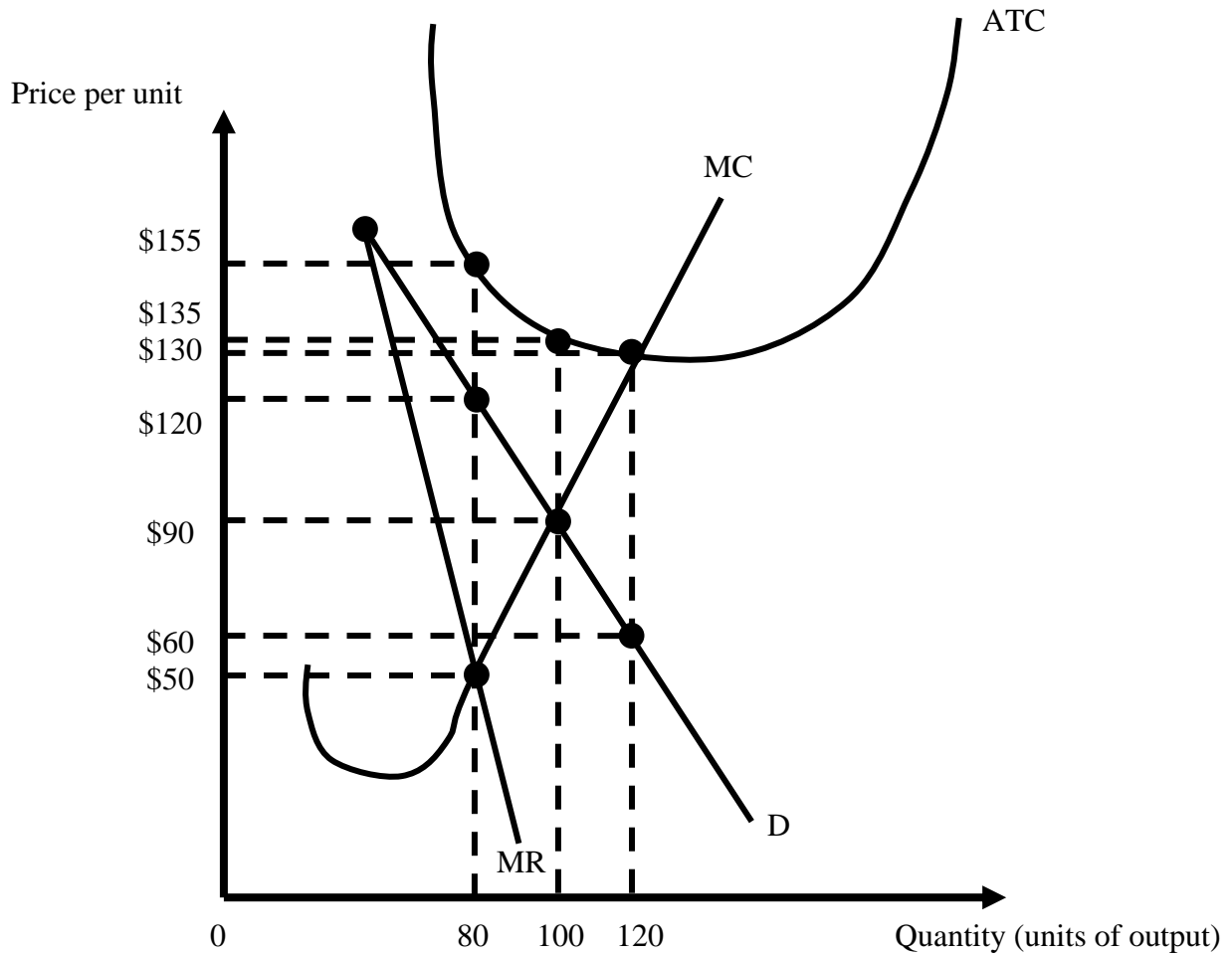
10. The profit-maximizing monopolist will produce _____ units of output.

11. The profit-maximizing monopolist will charge customers a price of _____ per unit.

12. The monopolist will earn/take _____ \$ _____ of

_____ total profit/total loss.

Use this graph of a monopoly firm to answer the questions below.



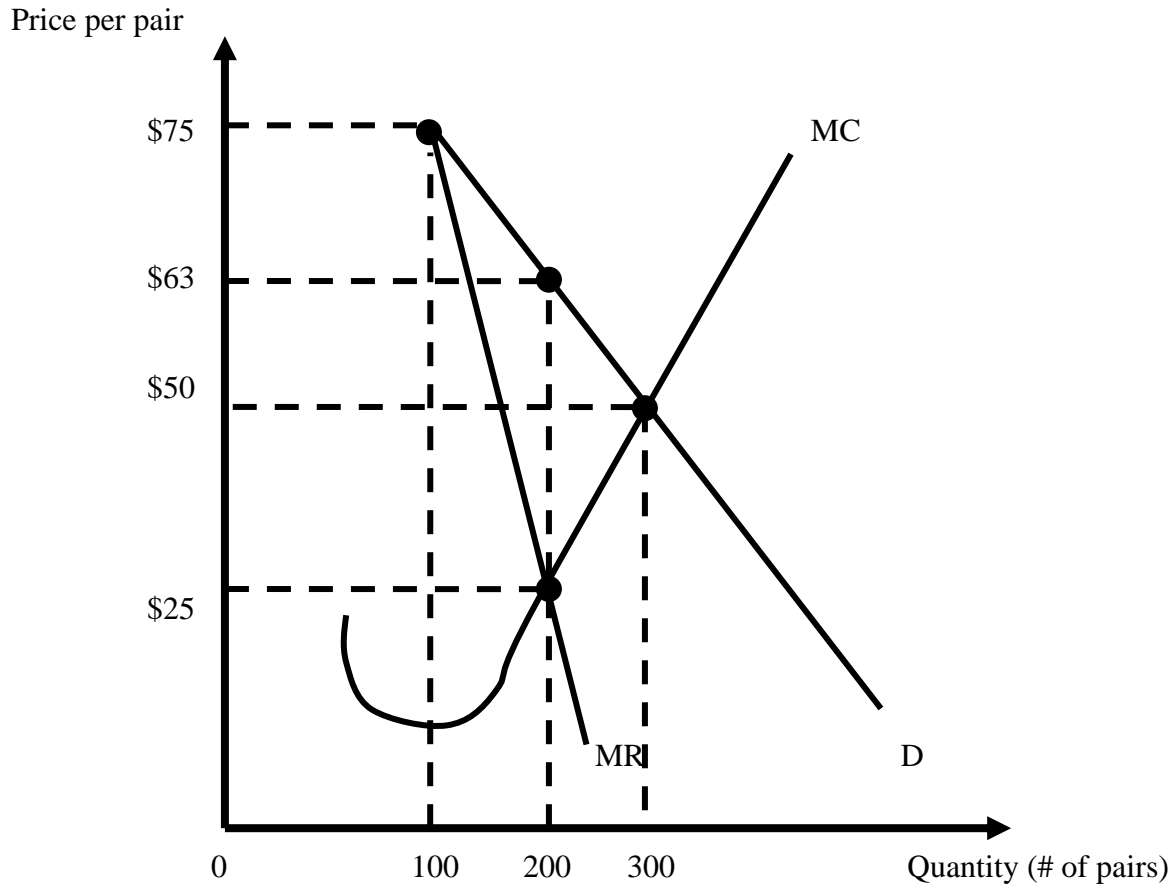
13. The profit-maximizing monopolist will produce _____ units of output.

14. The profit-maximizing monopolist will charge customers a price of _____ per unit.

15. The monopolist will earn/take _____ \$ _____ of

_____ total profit/total loss.

Use this graph of the market for shoes to answer the questions below.



16. If there is ONLY ONE shoe store in town, this shoe store will stock _____ pairs of shoes per week and charge customers a price of _____ per pair of shoes.

17. If instead there is a large number of small shoe stores in town, they will stock a total of _____ pairs of shoes per week and charge customers a price of _____ per pair of shoes.

MY SOLUTIONS

(1) MC = 20, 60, 120, 300, 500

(2) TR = 0, 600, 1000, 1200, 1200, 1000

(3) MR = 600, 400, 200, 0, -200

(4) $Q^* = 3$ units

(5) $P^* = \$400$

(6) Total Profit = \$500

(7) $Q^* = 3$ motorcycles

(8) $P^* = \$15,000$

(9) Total Profit = \$27,000

(10) 40

(11) \$60

(12) Earn, $(\$60 - \$40) * 40 = \$800$, Total Profit

(13) 80

(14) \$120

(15) Take, $(\$155 - \$120) * 80 = \$2800$, Total Loss

(16) 200, \$63

(17) 300, \$50