

Use the following information to answer **questions 1-4**. A DVD making monopolist incurs \$10 in fixed costs. The marginal cost is \$2 per DVD produced.

P	Q	TR	MR	TC	Profit
\$10	0				
9	1				
8	2				
7	3				
6	4				
5	5				
4	6				

- What is the profit maximizing quantity for this DVD monopolist in the **short run**?
 - 0 (since closed in short run)
 - 5
 - 2
 - 3
 - 4
- What is the profit maximizing quantity for this DVD monopolist in the **long run**?
 - 0 (since closed in long run)
 - 5
 - 2
 - 3
 - 4
- How much profit (or loss) does this monopolist incur in the **short run**?
 - \$5
 - \$2
 - \$10
 - \$16
 - \$6
- How much profit (or loss) does this monopolist incur in the **long run**?
 - \$0
 - \$3
 - \$2
 - \$5
 - \$6
- In the long-run, how does a monopolist determine whether to be open or closed?
 - Close if cannot cover all fixed costs
 - Close if price exceeds marginal costs
 - Close if earning zero economic profit
 - Close if losing money
 - Close if price exceeds average variable costs
- At a price of \$24, the monopolist is current producing: $Q = 8$, the $ATC = \$8$, $AVC = \$6$, $MR = \$14$ & $MC = \$12$. How can this monopolist increase profits?
 - Increase quantity.
 - Reduce quantity.
 - Keep quantity the same since already maximizing profits.
 - Shut down since losing money.

7. Why are many U.S. farmers planting more corn this year compared to prior years?
- U.S. farmers are becoming more ecological friendly
 - U.S. farmers want to reduce our dependence on foreign oil
 - Planting corn is profitable for farmers
 - Americans expected to eat more corn this year than in prior years
 - Congress recently imposed a price ceiling for corn
8. Which curve acts as a perfectly competitive firm's supply curve?
- MR
 - MC
 - ATC
 - AVC
 - AFC
9. What is the term "dead weight loss" mean?
- the loss attributed to paying fixed costs after a firm has closed (in the short run)
 - financial losses incurred by the firm due to pension/health care costs.
 - the reduction in tax revenue to the government following a firm's closure.
 - the reduction in marginal revenue following a price increase.
 - the reduction in total surplus when a monopoly operates rather than a perfectly competitive firm.
10. Which of the following firms comes closest to using perfect price discrimination?
- eBay
 - Carmike12
 - Sam's Club
11. What prevents a perfectly competitive firm from making profits in the long-run?
- advertising.
 - government restrictions.
 - taxes.
 - entry.
 - mergers.

Use the following information to answer questions 12-14: a perfectly competitive firm has cost curves: $MC = 4 + 2Q$, $AVC = 4 + Q$, $TC = 2 + 4Q + Q^2$, and price is \$18.

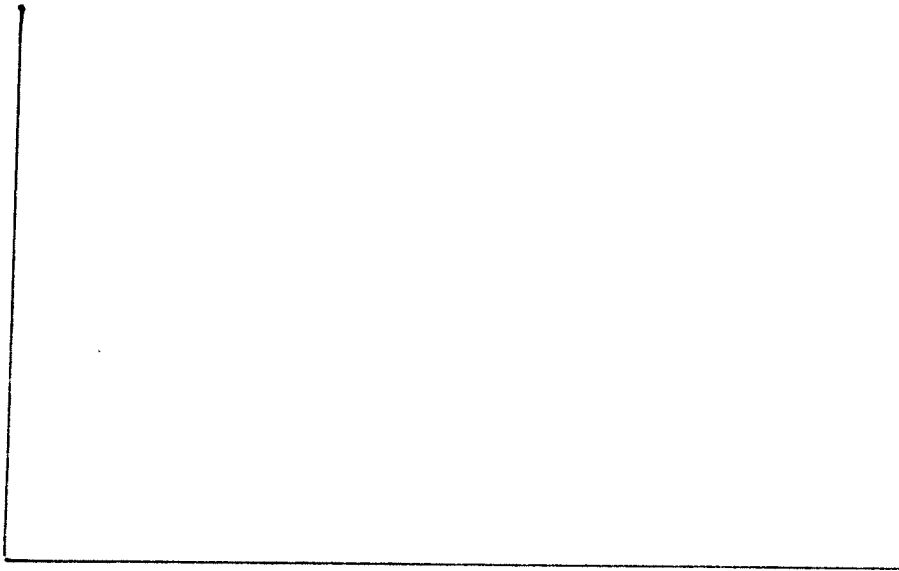
12. How many units of output (if any) in the short-run will the firm produce?
- 0 (closed)
 - 4
 - 7
 - 14
 - 8
13. How much profit (or loss) will this firm incur in the short-run?
- \$0
 - \$47
 - \$49
 - \$2
 - \$108
14. Find the producer surplus (Hint, a graph may help you answer this question)
- \$98
 - \$32
 - \$12
 - \$126
 - \$49

II. Discussion Questions (12 points per discussion question)

1. Beth cuts grass. She receives \$30 for each acre of grass she cuts. Beth finds that her marginal cost per acre is given by: $MC = 0.5q + 4$. In addition to her marginal cost, Beth pays \$100 each week in fixed costs. Hence her total costs are: $TC = 100 + 4q + 0.25q^2$

a. How many acres should Beth choose to mow each week to maximize profits (if any)?

b. On a graph, show Beth's profit maximizing output (if any). Label all curves, axes, and intercepts.



c. Calculate Beth's weekly short-run profit.

15. A company is trying to determine whether they should be open or closed for business on Sunday. Your advice is close on Sunday if the

- A. total cost of staying open exceed the total revenue due to staying open.
- B. total cost of staying open are less than the total revenue from staying open.
- C. variable cost of staying open are less than the total revenue due to staying open.
- D. variable cost of staying open are greater than the total revenue due to staying open.

16. Find the equilibrium strategy of the following game:

		Column		
		X	Y	Z
Row	A	4,2	8,2	2,3
	B	3,5	6,7	1,4
	C	0,4	-1,3	5,5

- A. (C, Z)
- B. (B, Y) & (A, X)
- C. (A, Y)
- D. (B, Y), (A, X), & (C, Z)
- E. (A, Z)

17. In the above game, identify the strongest equilibrium concept it satisfies.

- A. Nash Equilibrium
- B. Dominant Strategy Equilibrium
- C. Iterative Dominance Equilibrium
- D. Strong Equilibrium
- E. Weak Equilibrium

18. Find the equilibrium strategy of the following game:

		Column	
		Left	Right
Row	Up	1,1	5,0
	Down	0,5	4,4

- A. (Up, Left)
- B. (Down, Left)
- C. (Up, Right)
- D. (Down, Right)
- E. (Up, Left) & (Down, Right)

19. In the above game, identify the strongest equilibrium concept it satisfies.

- A. Nash Equilibrium
- B. Dominant Strategy Equilibrium
- C. Iterative Dominance Equilibrium
- D. Strong Equilibrium
- E. Weak Equilibrium

20. What output rule does the perfectly competitive firm and the monopolist use to maximize profits?

- A. $P = MR$
- B. $P = ATC$
- C. $MC = MR$
- D. $MC = AVC$
- E. $P = AVC$

2. The monopoly has the following inverted demand curve: $Q^d = 100 - \frac{1}{2} P$ and total cost: $TC = 20Q$ and marginal cost: $MC = 20$.

A. Graph the demand curve below.



B. Find the profit maximizing quantity.

C. Find the profit maximizing price.

- D. On the above graph (from A), pin stripe the producer surplus.
- E. On the same above graph, heavily shade the consumer surplus.
- F. On the same above graph, lightly shade the deadweight loss.

3. A perfectly price discriminating monopolist has demand: $P = 100 - 3Q$ and marginal cost: $MC = 2Q$.

A. What does it mean in words if a monopolist can perfectly price discriminate?

B. How much output does the perfectly price discriminating monopolist produce?

C. Show the areas of consumer surplus, producer surplus, and deadweight loss on a graph below for the perfectly price discriminating monopolist.



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EXAMPLE

- WRONG
1
- WRONG
2
- WRONG
3
- RIGHT
4

SR '08
Test 3

IMPORTANT DIRECTIONS FOR MARKING ANSWERS

Use #2 pencil only.
Make heavy black marks that fill the circle completely.
Erase clearly any answer you wish to change.
Make no stray marks on this answer sheet.

PRACTICE

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REFER TO THESE EXAMPLES BEFORE STARTING PRACTICE EXERCISES

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