SMU
SINGAPORE MANAGEMENT UNIVERSITY

Economics & Society
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Homework 4

Due on 6/2/2024, by 23:00

This assignment is optional but STRONGLY RECOMMENDED. If you do not submit the answers till the deadline, the score of your final exam will substitute for the score for this assignment. Submit only the correct letter for each task on eLearn under 'Quizzes' within 'COR2100-Economics and Society G7-8-9-10'. Note that the actual text of questions and answers is not supposed to appear on the eLearn quiz. You have unlimited attempts. The system is programmed to credit your last attempt. Be informed that if you submit an attempt and afterwards you re-open the quiz, you must submit your answers AGAIN. Otherwise, the system will grade the unfinished attempt with 0 (because it is the last one) and there is NOTHING I can do to fix this after the fact. Late homework or homework submitted outside eLearn cannot be accepted as this would violate SMU official policy for fairness and transparency in grading. This assignment is protected by Grade Insurance™: If the assignment's average turns out to be below 75, an equal amount of bonus points will be given to every work, for the average to become 75. Direct any homework questions to your TA.

***Scenario 4.1**: The market demand for robot vacuums is $p = 1{,}200 - 10q$ and $MC = 20q$.*

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1. According to scenario 4.1, how much is the AVC of the first 5 robot vacuums?
    A. Around $15.
    B. Around $30.
    C. Around $45.
    D. Around $60.
    E. Around $75.

2. According to scenario 4.1, what is the PC profit maximizing quantity?
    A. Around 10 robot vacuums.
    B. Around 20 robot vacuums.
    C. Around 30 robot vacuums.
    D. Around 40 robot vacuums.
    E. Around 50 robot vacuums.

3. According to scenario 4.1, what is the PC price?
    A. Around $600.
    B. Around $700.
    C. Around $800.
    D. Around $900.
    E. Around $1,000.

4. According to scenario 4.1, what is the monopolistic profit maximizing quantity?
    A. Around 10 robot vacuums.
    B. Around 20 robot vacuums.
    C. Around 30 robot vacuums.
    D. Around 40 robot vacuums.
    E. Around 50 robot vacuums.

5. According to scenario 4.1, what is the monopolistic price?
    A. Around $600.
    B. Around $700.
    C. Around $800.
    D. Around $900.
    E. Around $1,000.

6. According to scenario 4.1, how much the is the consumer surplus if the market is a monopoly?
    A. Zero.
    B. Around 1,500.
    C. Around 3,000.
    D. Around 4,500.
    E. Around 6,000.
    F. Around 7,500.

7. According to scenario 4.1, how much the is the DWL if the market is perfect competitive?
    A. Zero.
    B. Around 500.
    C. Around 1,000.
    D. Around 1,500.
    E. Around 2.000.
    F. Around 2,500.

8. According to scenario 4.1, how much the is the DWL if the market is a monopoly?
    A. Zero.
    B. Around 500.
    C. Around 1,000.
    D. Around 1,500.
    E. Around 2,000.
    F. Around 2,500.

9. According to scenario 4.1, how much will the monopolist's profit be, if FC = $8,000?
    A. Zero.
    B. Around $2,500.
    C. Around $5,000.
    D. Around $7,500.
    E. Around $10,000.
    F. Around $12,500.

10. Which of the following is accurate?
    A. Monopolies have more market power than PC firms.
    B. Monopolies have more profits than PC firms.
    C. Both A and B.
    D. None of the above.

11. Suppose that the production of a new iPhone has AVC constant at $200. How much will the profit maximizing price be if the elasticity of demand for the iPhone is -1.2?
    A. Around $600.
    B. Around $800.
    C. Around $1,000.
    D. Around $1,200.
    E. Around $1,400.
    F. We have insufficient information to answer.

12. Which of the following is more likely to increase the market power of Coca-Cola?
    A. A peer-reviewed study linking soft drinks to cancer.
    B. A new advertisement campaign featuring Billie Eilish.
    C. Elon Musk starts selling cola-X.
    D. All of the above.

Scenario 4.2: The table below shows the quantity, total revenue and total cost of a monopolist with zero fixed cost.

Quantity	*1*	*2*	*3*	*4*	*5*	*6*
Total Revenue	*200*	*350*	*480*	*600*	*700*	*780*
Total Cost	*130*	*190*	*270*	*365*	*460*	*600*

13. According to scenario 4.2, how many units will the monopolist produce?
    A. 1 unit.
    B. 2 units.
    C. 3 units.
    D. 4 units.
    E. 5 units.
    F. 6 units.

14. According to scenario 4.2, how much will the monopolist charge?
    A. Around $100.
    B. Around $120.
    C. Around $140.
    D. Around $160.
    E. Around $180.
    F. Around $200.

15. Which of the following is most likely to be the reason why governments avoid imposing sales-taxes on pharmaceutical products with inelastic demand?
    A. The tax would decrease the monopolist's profits.
    B. The tax would increase the monopolist's profits.
    C. The tax would increase the DWL.
    D. The tax would not yield revenue for the state.

q	0	1	2	3	4	5	6	7
p	150	135	118	100	83	69	58	49

Table 4.1: The demand schedule for a monopolist

16. According to table 4.1, what is the profit maximizing quantity for the monopolist if $AVC = \$30$ for every q?
    A. Zero.
    B. 1 unit.
    C. 2 units.
    D. 3 units.
    E. 4 units.
    F. 5 units.
    G. 6 units.
    H. 7 units.

17. According to table 4.1, how much will the monopolist's profit be if $AVC = \$30$ for every q and the fixed cost is equal to \$10?
    A. Around \$50.
    B. Around \$100.
    C. Around \$150.
    D. Around \$200.
    E. Around \$250.
    F. Around \$300.

18. In most countries, there is absence of a human's organs market. Which of the following problems would an organized organ market fail to meet?
    A. The huge DWL.
    B. The astronomical prices of human organs.
    C. The low supply of human organs.
    D. Only people with the ability to pay the market price will benefit from the market.

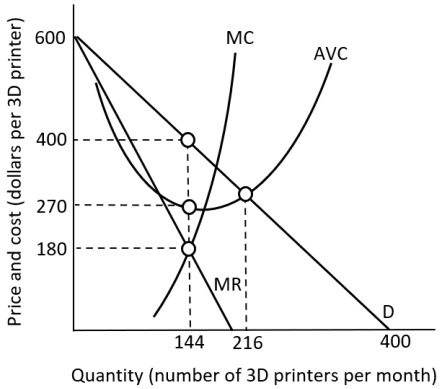

Figure 4.1: the demand and cost curves for a monopolist, who produces 3D printers

19. According to figure 4.1, how much is the price elasticity of demand for printers when the monopolist sells 216 printers?
    A. $-\infty$.
    B. Around -1.5.
    C. -1.
    D. Around -0.5.
    E. 0.

20. According to figure 4.1, how much will the monopolist's monthly profit be if the fixed cost is $4,000?
    A. Around $5,000.
    B. Around $10,000.
    C. Around $15,000.
    D. Around $20,000.
    E. Around $25,000.
    F. Around $30,000.

Good afternoon! Most people think that the key to success in life is making smart decisions. Actually, this could not be more wrong. People succeed in many different ways, following vastly dissimilar paths or even making opposite decisions. However, there exists one trait that all successful people have in common: developing winning habits. Either you like it or not, your habits is what makes you a winner or a loser, not your decisions. Losers learn to need reminders, to start working only if a deadline approaches, to do only the minimum necessary with as little effort as possible and their everyday goal is to 'get away with it'. On the other hand, winners have the habit to be on top of their own schedule, to not need a deadline to get the job done. Winners do always their best out of habit. You may not be ready to accept this now, but in the same way you will work today on this homework, tomorrow you will work on a business project, or on your own company. So, do not fool yourself by thinking: "Well, I will half-ass it in this homework which does not matter much, but I will do my best later when it will really matter". This never works for two reasons. First, in real life you never know from before how much something will turn out to matter in the end. Second, because it makes you form looser habits, and those will follow you forever. So, do yourself a favor and quit those now while it is still early. Kosmas