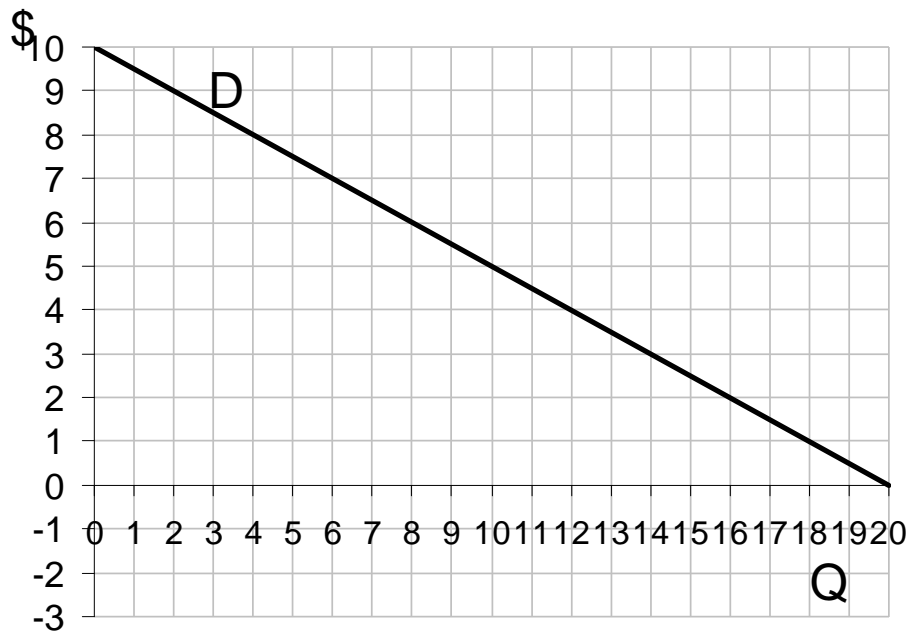


Econ 1101 Additional Questions from Weeks 11-15

A monopolist faces the demand curve illustrated below. Draw the marginal revenue (MR) curve on the graph. Suppose the marginal cost (MC) and average variable cost (AVC) both equal 2 for all quantity levels,  $MC = AVC = 2$ . Draw the MC curve in the graph.



1. Marginal revenue equals zero at what quantity level?
  - a)  $Q = 0$
  - b)  $Q = 4$
  - c)  $Q = 10$
  - d)  $Q = 12$
  - e)  $Q = 20$
2. At the quantity where Marginal Revenue equals zero
  - a) Revenue is maximized
  - b) The elasticity of demand is greater than one
  - c) The elasticity of demand is less than one
  - d) Marginal revenue equals average revenue
3. Assume the fixed cost equals zero and  $MC = 2$ . The profit maximizing monopoly price equals
  - a) 6
  - b) 8
  - c) 9
  - d) 10
  - e) 5

4. Again, assuming the fixed cost equals zero, the monopoly profit equals equals
- a) 10
  - b) 12
  - c) 14
  - d) 16
  - e) 32
5. Again, suppose the fixed cost equals zero. What is the monopoly profit if the firm can perfectly price discriminate?
- a) 18
  - b) 20
  - c) 28
  - d) 36
  - e) 64
6. Let's go back to the case where the monopolist sets a uniform price. Compared to the competitive allocation with free entry, the change in total surplus from monopoly (the deadweight loss) equals
- a) -8
  - b) -12
  - c) -2
  - d) -4
  - e) -16
7. In the answer to your previous question, we have implicitly assumed there are no externalities. Suppose instead there is a negative externality. In particular, for every units produced, assume there is an external cost of \$4 per unit. In this case, the monopoly output is
- a) above the socially efficient level.
  - b) below the socially efficient level.
  - c) equal to the socially efficient level.
  - d) there is not enough information to answer this question.
8. Suppose Econland is initially in autarky. Then after it opens up to trade, widget producers in Econland become better off while widget consumers in Econland become worse off. After Econland leaves autarky,
- a) it must be using an import quota on widgets.
  - b) it must be using a tariff on imported widgets.
  - c) it must be exporting widgets.
  - d) None of the above.

Big Pharma Corp. is considering developing a new drug to treat productivity dysfunction. **Assume Big Pharma can perfectly price discriminate.** The operating profit generated by the drug depends whether the patent lasts zero, one or two years. . When there is no patent, competition drives price to marginal cost. The resulting operating profits are given in the following table.

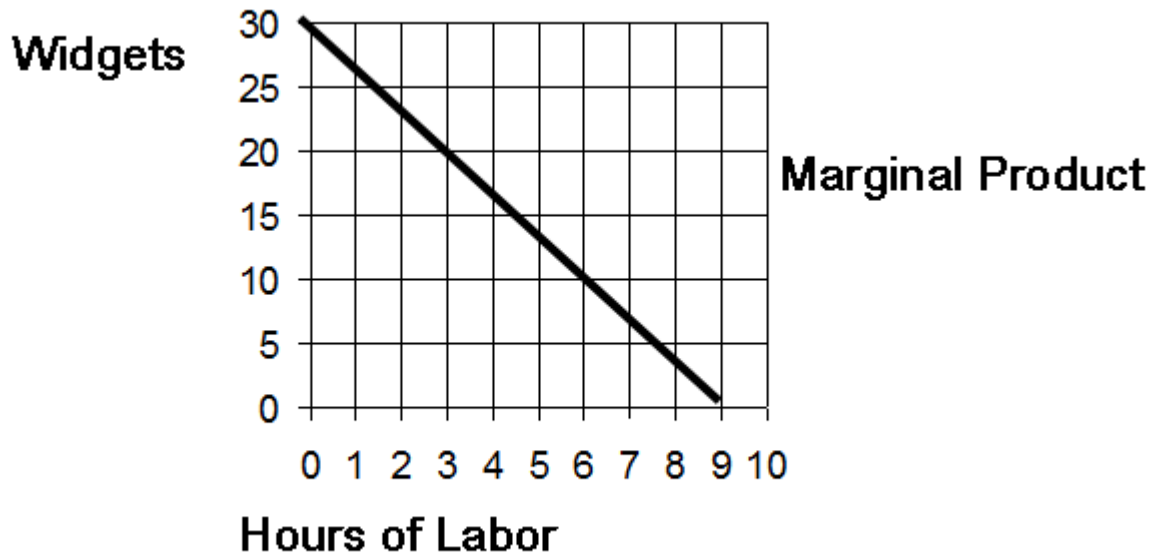
	Patent Lasts Zero Years (same as no patent)	Patent Lasts One Year	Patent Lasts Two Years
Operating Profit (year 1)	0	300	300
Operating Profit (year 2)	0	0	300
Operating Profit over two years	0	300	600

9. Suppose the fixed cost to develop the drug is 200. What patent lengths result in the maximum **total surplus** (remember the firm can perfectly price discriminate).
- just 0 years
  - 0, 1, or 2 years
  - just 1 year
  - just 2 years
  - 1 or 2 years
10. Again, suppose the fixed cost to develop the drug is 200. What patent lengths result in the maximum **consumer surplus** (remember the firm can perfectly price discriminate).
- just 0 years
  - 0, 1, or 2 years
  - just 1 year
  - just 2 years
  - 1 or 2 years
11. A cartel is more likely to be successful in sustaining prices close to the monopoly level if
- interaction is frequently repeated and participants care about the future.
  - there are few firms participating in the cartel.
  - players can quickly react to deviations by other players from the cartel agreement.
  - all of the above.

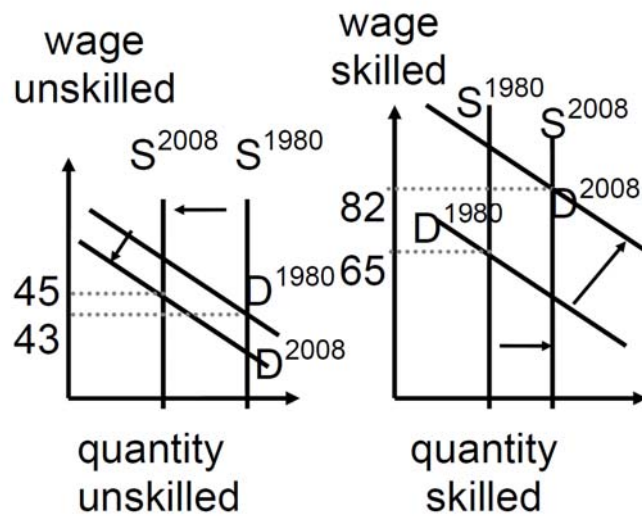
		Pam	
		Left	Right
Jim	Up	Pam gets payoff 2 Jim gets payoff 4	Pam gets payoff 0 Jim gets payoff 0
	Down	Pam gets payoff 0 Jim gets payoff 0	Pam gets payoff 4 Jim gets payoff 2

Jim and Pam are playing the following game. Jim has two cards, "Up" and "Down." Pam has two cards, "Left" and "Right." The players simultaneously pick one card to show the other. The payoff each player gets depends upon the cards picked as shown in the table above.

12. If Pam believes Jim is going to play "Up," to maximize her payoff Pam should play
  - a) Left
  - b) Right
  - c) Left and Right give her the same payoff
  - d) Not enough information
  
13. Which of the following statements is true?
  - a) The only Nash equilibrium is: Jim plays "Up," Pam plays "Left."
  - b) The only Nash equilibrium is: Jim plays "Down," Pam plays "Left."
  - c) The only Nash equilibrium is: Jim plays "Up," Pam plays "Right."
  - d) The only Nash equilibrium is: Jim plays "Down," Pam plays "Right."
  - e) There is more than one Nash equilibrium.
  
14. Suppose that instead of simultaneously showing each other cards, Pam moves first and shows her card. After seeing Pam's card, Jim picks his card. Assume each player is forward looking and each plays rationally, given the choice already made by the other player. In this case, the equilibrium outcome is
  - a) Pam plays "Left," Jim plays "Up."
  - b) Pam plays "Left," Jim plays "Down."
  - c) Pam plays "Right," Jim plays "Up."
  - d) Pam plays "Right," Jim plays "Down."



15. Suppose the marginal product of labor for a firm is given by the figure above. Suppose there is perfect competition in the output market and the labor market and that the output price is \$5 and the wage is \$50 per hour. In this case, the demand for labor by the firm equals \_\_\_\_\_ hours. (Fill in the blanks.)
- 2
  - 3
  - 4
  - 6
  - 9
16. Suppose the wage increases to \$100 an hour. Compared to when the wage is \$50 an hour, the firm's total spending on labor (the wage times the quantity of labor) will
- increase.
  - decrease.
  - be unchanged.
  - there is not enough information to determine the direction of the effect.



17. The above figure illustrates demand and supply for unskilled and skilled labor in the United States in 2008 and 1980. (Wages are in \$1,000 per year in 2008 dollars.) Factors that have contributed to the outcome illustrated above include
- The skill premium has risen because of the decrease in the relative supply of skilled workers in the U.S.
  - The new technologies in recent years have tended to complement unskilled workers.
  - The new technologies in recent years have tended to substitute for skilled workers.
  - None of the above.
18. The temptation of workers on a fixed salary to not work hard when the boss isn't watching them is
- an example of the moral hazard problem.
  - an example of the adverse selection problem.
  - an example of screening.
  - an example of signaling.
19. The fact that someone with a high risk of medical problems is likely to buy a large amount of health insurance is an example of
- adverse selection.
  - monitoring.
  - moral hazard.
  - screening.