

1. Should the federal government continue to provide Amtrak with subsidies? Provide economic arguments for and against and explain which you believe is soundest based on your understanding.
2. Based on the economic concepts of opportunity costs and the profit motive (defined broadly as the desire to become better through our choices), how should your limited resources of time and energy be allocated between market work, nonmarket work and leisure? Provide examples
3. Explain how economies of scale can be a barrier to entry.
4. Identify the other two barriers to entry and explain how they block new firms from this market.
5. Suppose that a certain manufacturer has a monopoly on the sorority and fraternity ring business because it has persuaded the "Greeks" to give it exclusive rights to their insignia.
 - a. Using demand and cost curves, draw a diagram depicting the firm's profit-maximizing price and output level.
 - b. Why is marginal revenue less than price for this firm?
 - c. On your diagram, show the deadweight loss that occurs because the output level is determined by a monopoly rather than by a competitive market.
 - d. What would happen to price and output if the Greeks decided to charge the manufacturer a royalty fee of \$3 per ring?
6. List three conditions that must be met for a monopolist to price discriminate successfully.

7. Why is the perfectly discriminating monopolist's marginal revenue curve identical to the demand curve it faces?

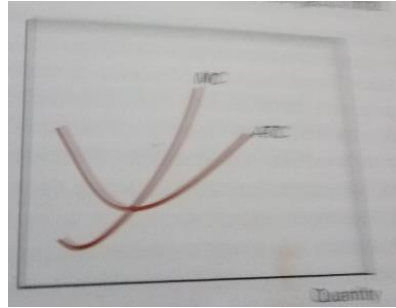
8. A monopolistically competitive firm faces the following demand and cost structure in the short run:

<u>Output</u>	<u>Price</u>	<u>FC</u>	<u>VC</u>	<u>TC</u>	<u>TR</u>	<u>Profit/Loss</u>
0	100	100	0			
1	90		50			
2	80		90			
3	70		150			
4	60		230			
5	50		330			
6	40		450			
7	30		590			

- Complete the table
- What is the highest profit or lowest loss available to this firm?
- Should the firm operate or shut down in the short run? Why?
- What is the relationship between marginal revenue and marginal cost as the firm increase output?

9. Illustrated below are the marginal cost and average total cost curves for a small firm that is in long-run equilibrium.

- Locate the long run- equilibrium price and quantity if the firm is perfectly competitive.
- Label the price and quantity p1 and q1.
- Draw in a demand and marginal revenue curve to illustrate long-run equilibrium if the firm is monopolistically competitive. Label the price and quantity p2 and q2.
- How do the monopolistically competitive firm's price and output compare to those of the perfectly competitive firm?
- How do long-run profits compare for the two types of firms?



10. Why is a firm in monopolistic competition said to be competitive? In What sense is that firm monopolistic?
11. Why might a price-leadership model of oligopoly not be an effective means of collusion in an oligopoly?
12. Why would each of the following induce some members of OPEC to cheat on their cartel agreement?
 - a. Newly joined cartel members are less- developed countries.
 - b. The number of cartel members doubles from 12 to 24.
 - c. International debts of some members grow.
 - d. Expectations grow that some members will cheat
13. Use revenue and cost curves to illustrate and explain the sense in which a cartel behaves like a monopolist.
14. Suppose there are only two automobile companies, Ford and Chevrolet. Ford believes that Chevrolet will match any price it sets, but Chevrolet too is interested in maximizing profits. Use the following price and profit data to answer the following questions.

Ford's Selling Price	Chevrolet's Selling Price	Ford's Profits (millions)	Chevrolet's Profits (millions)
\$ 4,000	\$ 4,000	\$ 8	\$ 8
4,000	8,000	12	6
4,000	12,000	14	2
8,000	4,000	6	12
8,000	8,000	10	10
8,000	12,000	12	6
12,000	4,000	2	14
12,000	8,000	6	12
12,000	12,000	7	7

- What price will Ford charge/
- What price will Chevrolet charge once Ford has set its price?
- What is Ford profit after Chevrolet's response?
- If the two firms collaborated to maximize joint point, what prices would they set?
- Given your answer to part (d) how could undetected cheating on price cause the cheating firms' profit to rise?

15. While grading a final exam, an economics professor discovers that two students have virtually identical answers. She is convinced the two cheated but cannot prove it. The professor speaks with each student separately and offers the following deals; Sign a statement admitting to cheating. If both student sign the statement, each will receive an "F" for the course. If only one signs he is allowed to withdraw from the course while the other student is expelled. If neither signs, both receive a C because the professor does not have sufficient evidence to prove cheating.

- Draw the payoff matrix
- Which outcome do you expect? Why?

16. Why is firm behavior under oligopoly so difficult to predict?

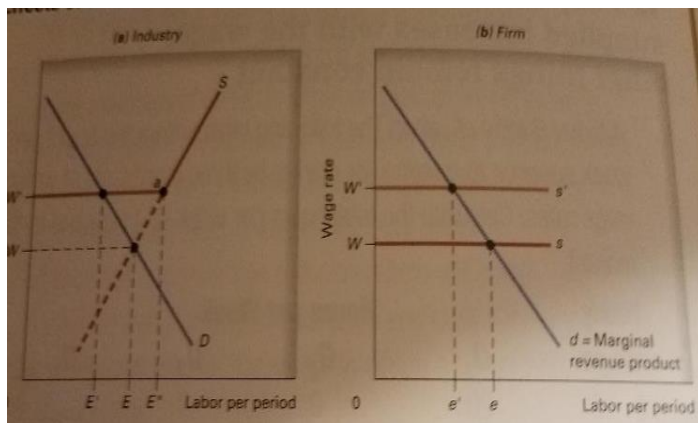
17. The following table shows the hours per week supplied to a particular market by three individuals at various wage rates. Calculate the total hours per week (Q1) supplied to the market.

Hourly Wage	Hours per Week			
	Q_1	Q_2	Q_3	Q_T
\$ 15	20	0	0	_____
16	25	0	0	_____
17	35	10	0	_____
18	45	25	10	_____
19	42	40	30	_____
20	38	37	45	_____

Why does the quantity supplied tend to increase with the hourly wage? Which individuals, if any, have backward-bending supply curves in the wage range shown? Does the market supply curve bend backward in the wage range shown in the table?

18. Suppose that the cost of living increase, thereby reducing the purchasing power of your income. If your money wage doesn't increase you may work more hours because of this cost of living increase. Is this response predominantly an income effect or a substitution effect? Explain.
19. Suppose that two jobs are exactly the same except that one is performed in an air- conditioned workplace. How could you measure the value workers attach to such a job amenity?
20. Why might permanent wage differences occur between different markets for labor or within the same labor market?
21. Both industrial unions and craft unions attempt to raise their members' wages, but each goes about it differently. Explain the difference in approaches and describe the impact this difference have an excess quantity of labor supplied.
22. What other objective besides higher wages do unions pursue?
23. What strategies do unions employ to achieve their wage objectives?

24. What trends have worked against the union movement during the last half century? What has happened to the effectiveness of strikes and why?
25. Review the logic underlying the exhibit below. Then determine the effect, on the industry and a typical firm, of an increase in the demand for industry output. Show your conclusion on a graph. Does the magnitude of the increase in demand make a difference?



26. Why might firms in industries with high fixed costs be inclined to prevent strikes or end strikes quickly?
27. Why are unions more effective at raising wages in oligopolistic industries than in competitive industries?
28. Describe the three types of government regulation of business.
29. Define market power, and then discuss the rationale for government regulation of firms with market power.
30. The following graph represents a natural monopoly.
- a. Why is this firm considered a natural monopoly?

- b. If the firm is unregulated, what price and output would maximize its profit? What would be its profits or loss?
- c. If a regulatory commission establishes a price with the goal of achieving allocative efficiency. What would be the price and output? What would be the firm's profit or loss?
- d. If a regulatory commission establishes a price with the goal of allowing the firm a normal profit, what would be the price and output? What would be the firm's profits or loss?
- e. Which one of the prices in parts (b)(c), and (d) maximizes consumer surplus? What problem, if any occurs at this price?

31. Why do producers have more interest in government regulations than consumers do?

- a. Compare and contrast the public-interest and special-interest theories of economic regulation. What is the capture theory of regulation?
- b. Which theory of regulation explains why the massive fraud of Bernie Madoff went undetected for years.

32. Identify the type of anticompetitive behavior illustrated by each of the following:

- a. A university requires buyers of seasons tickets for its basketball games to buy season tickets for it's football games as well
- b. Dairies that bid on contracts to supply milk to school districts collude to increase what they charge
- c. The same individual serves on the boards of directors if General Motors and Ford.
- d. A large retailer sells merchandise below cost in certain regions to drive competitors out of business.
- e. A producer of soft drinks sells to a retailer agrees not to buy from the producer's major competitor.

33. Identify the four U.S. merger waves and explain the driving force behind each.

34. Calculate the Herfindahi-Hirschman index for each of the following industries. Which industry is the most concentrated?

- a. An industry with five firms that the following market shares: 50 percent, 30 percent, 10 percent 5 percent, and 5 percent
- b. An industry with five firms that have the following market shares 60 percent, 20 percent, 10 percent, 5 percent and 5 percent
- c. An industry with five firms, each of which has a 20 percent market shared

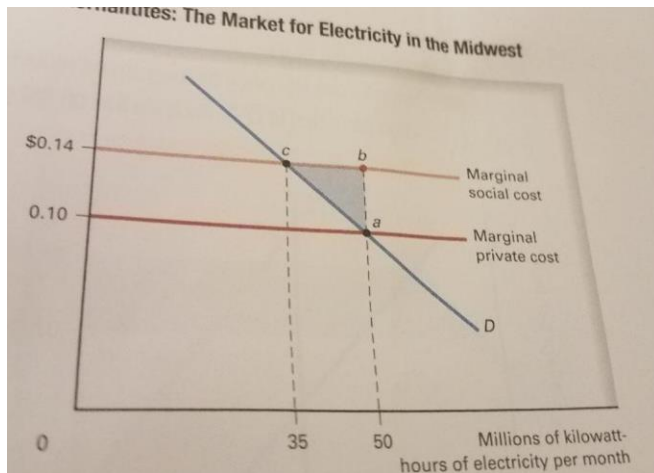
35. William Shepherd's research of U.S. Industries showed a clear trend in the competitiveness of the U.S. economy between 1958 and 2000. Is the economy growing more or less competitive and how did Shepherd explain this trend?

36. Complete each of the following sentences:

- Resources for which periodic use can be continued indefinitely are known as _____ resources.
- Resources that are available only in a fixed amount are _____ resources.
- The possibility that a open-access resource is used until the net marginal value of additional use equals zero is known as the _____.

37. Why have authorities found it so difficult to regulate the fishing catch in the open ocean to allow for a sustainable yield?

38. Suppose you wish to reduce a negative externality by imposing a tax on the activity that creates that externality. When the amount of the externality produced per unit of output increases as output increases, the correct tax can be determined by using a demand-supply diagram; show this. Assume that the marginal private cost curve slopes upward.



39. Review the situation in the graph above. If the government sets the price of electricity at the socially optimal level, why is the net gain equal to triangle abc, even though consumers now pay a higher price for electricity? What would the net gain be if the government set the price above the optimal level?

40. Use data below to answer the following questions.

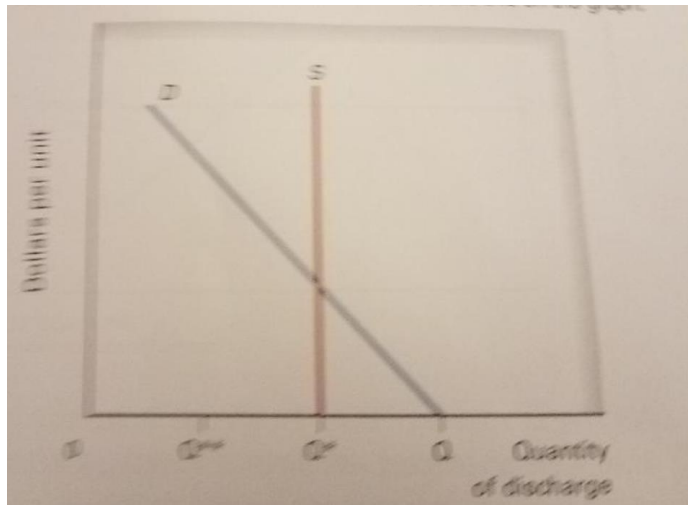
- What is the marginal external cost of production
- What level is produced if there is no regulation of the externality
- What level should be achieving economic efficiency?
- Calculate the dollar value of the net gain to society from correcting the externality.

Quantity	Private Benefit (Demand)	Marginal Private Cost (supply)	Marginal Social Cost
1	10	1	1
2	9	2	4
3	8	3	5
4	7	4	6
5	6	5	7
6	5	6	8
7	4	7	9
8	3	8	10
9	2	9	11
10	1	10	12
		11	13

41. Think of industry that pollutes the water and has access to variable technology that reducing that pollution. Graphically illustrate and explain the impact of each of the following, other things constant on the optimal level of water quality.

- New evidence is discovered about a greater risk of cancer from water pollution.
- A cost of pollution-control equipment increases
- A technological improvement reduces the cost of pollution control

42. The following graph shows the market for pollution rights.



- If there are no restrictions on pollutions, water amount is discharged?
- What is the quantity supplied and the quantity demanded if the government restricts the amount of discharge to " Q " but gives the permits away?
- Where is market equilibrium if the government sells the permits? Illustrate this graph.
- What happen to market equilibrium if the government reduces the amount of discharge permitted to Q^{**} ? Illustrate this on the graph.

43. Four federal laws and subsequent amendments underpin U.S. environmental protection. Identify these laws.

44. The value of a home depends in part on how attractive other homes and yards in the neighborhood are. How do local zoning ordinances try to promote land uses that generate external benefits for neighbors?