

Income	Rate
\$0 to \$8,925	10%
\$8,925 to \$36,250	15%
\$36,250 to \$87,850	25%
\$87,850 to \$183,250	28%
\$183,250 to \$398,350	33%
\$398,350 to \$400,000	35%
\$400,000 and above	39.60%

1. The following table gives the 2013 federal income tax rates for a single individual.

a. Calculate the total tax payable for an individual who earns \$250,000 a year.

b. What is his marginal tax rate?

c. Calculate his average tax rate.

2. Government spending in the United States has grown over time and now accounts for more than forty percent of United States national income. Does this mean that government has been consistently running a budget deficit?

3. Refer to the scenario below for the following questions:

Number of Workers	Output	Marginal Product of Labor	Value of Marginal Product of Labor
0	0		
1	15		
2	27		
3	36		
4	42		
5	45		
6	46		

4. Refer to the scenario above. What is the marginal product of labor when the second worker is hired?

- a. 27
- b. 56
- c. 12
- d. 24

5. Refer to the scenario above. What is the marginal product of labor when the third worker is hired?
- 36
  - 72
  - 18
  - 9
6. Refer to the scenario above. If the wage rate in this market is equal to \$6, this firm will hire \_\_\_\_\_ workers.
- 2
  - 3
  - 4
  - 5
7. Refer to the scenario above. If the wage rate in this market is equal to \$9, this firm will hire \_\_\_\_\_ workers
- 2
  - 3
  - 4
  - 5
8. Suppose the refrigerator industry has an HHI of 2,500 while the aluminum industry's HHI is 6,850. Is this information sufficient to conclude that the aluminum market is more concentrated than market for refrigerators? Explain your answer.
9. Suppose there are five firms in an industry. Their sales (i.e., total revenue) are as follows:
- Firm 1: \$90 million
  - Firm 2: \$50 million
  - Firm 3: \$36 million
  - Firm 4: \$14 million
  - Firm 5: \$10 million
- Compute the Herfindahl-Hirschman Index (HHI) for this industry
10. Suppose all you know is that Boeing sells about 40% of all commercial aircraft, while Airbus sells around 25%.
- Based on this information, what is the *largest* the Herfindahl-Hirschman Index (HHI) might be? (Hint: Assume there is just one other firm.)
  - What is the *smallest* the HHI might be? Based on this, can we say with confidence that the commercial aircraft industry is "concentrated"? (bonus 5pts)

11. How are the products sold by a monopolistically competitive firm different from the products sold in a competitive market?
12. Scenario: The following excerpt is from "Throwing the Book at Apple" (*Wall Street Journal*, Review and Outlook, June 12, 2013):

At the time, prior to the existence of the tablet device market that Jobs created with the iPad, Apple did not sell e-books. Amazon sold nine of every 10. Justice claims Jobs then forced Amazon and every other e-book distributor to adopt a new e-book pricing model that harmed consumers.

Yet the average retail price for "trade" e-books has since dropped to \$7.34 from \$7.97, and Amazon's Kindle is still the industry leader with Apple trailing in third. Over the same period readers bought 447% more e-books, and they can choose from dozens of tablets for titles and other media content.

Refer to the scenario above. Is Apple Inc. a monopolist in the e-book market?

- A) Yes, because it is the only seller of e-books without actual or potential competitors.
- B) Yes, because it has the power to affect the prices of e-books.
- C) No, because it is not the only seller of e-books without actual or potential competitors.
- D) No, because it does not have the power to affect the prices of e-books.

Refer to the scenario above. What market structure best describes the e-book market?

- A) A monopoly
- B) A competitive market with a few dominant firms producing substitutes
- C) A competitive market with a few dominant firms producing identical goods
- D) A perfectly competitive market

13. Suppose that a firm in a competitive market succeeds in producing a superior product and selling it at a price that generates a large demand. As a result, the firm's market share is almost 100 percent. Meanwhile, other firms are trying to regain their market shares through research and development. Is this firm a monopolist?

- A) Yes, because it has a power to dictate the price consumers must pay.
- B) Yes, because it is virtually the only firm in the market.
- C) No, because it does not have a power to dictate the price consumers must pay.
- D) No, because it faces potential competition from other companies.

14. Whoever establishes any private express for the conveyance of letters or packets, or in any manner causes or provides for the conveyance of the same by regular trips or at stated periods over any post route which is or may be established by law, or from any city, town, or place to any other city, town, or place, between which the mail is regularly carried, shall be fined not more than \$500 or imprisoned not more than six months, or both....

The Code of Federal Regulation (CFR) Title 39 Section 310.2 states

It is generally unlawful under the Private Express Statutes for any person other than the Postal Service in any manner to send or carry a letter on a post route or in any manner to cause or

assist such activity. Violation may result in injunction, fine or imprisonment or both and payment of postage lost as a result of the illegal activity...

Under these laws, the U.S. Postal Service \_\_\_\_\_.

- A) has a monopoly power over private express mail
- B) has a comparative advantage over private express mail
- C) competes in an oligopoly market for private express mail
- D) competes in a monopolistic competition against other private express mail carriers

15. A market structure in which there is no competition is referred to as a(n) \_\_\_\_\_.

- A) monopoly
- B) oligopoly
- C) monopsony
- D) monopolistically competitive market

16. Compared to a firm under perfect competition, a monopolist \_\_\_\_\_.

- A) charges less and produces less
- B) charges less and produces more
- C) charges more and produces less
- D) charges more and produces more

17. Compared to a perfectly competitive industry, \_\_\_\_\_ in a monopoly.

- A) both consumer surplus and social surplus are larger
- B) consumer surplus is lower but social surplus is larger
- C) both consumer surplus and social surplus are smaller
- D) consumer surplus is higher but social surplus is smaller

18. A market structure in which identical goods are produced by several different firms and sold at the market-determined price is referred to as \_\_\_\_\_.

- A) an oligopoly
- B) a monopoly
- C) perfect competition
- D) monopolistic competition

19. The effect of the invisible hand is likely to be the strongest in \_\_\_\_\_.

- A) an oligopoly
- B) a monopoly
- C) perfect competition

D) monopolistic competition

20. Which of the following market structures provides socially efficient outcomes?

A) An oligopoly

B) A monopoly

C) Perfect competition

D) Monopolistic competition

21. A price-maker is a firm that \_\_\_\_\_.

A) has the power to affect the price of the product it sells

B) earns economic profits in both the short run and the long run

C) can sell any quantity of its product at the prevailing market price

D) sells its products at a price equal to the marginal cost of production