

科目名稱	經濟學	類組代碼	共同考科
		科目碼	E0021

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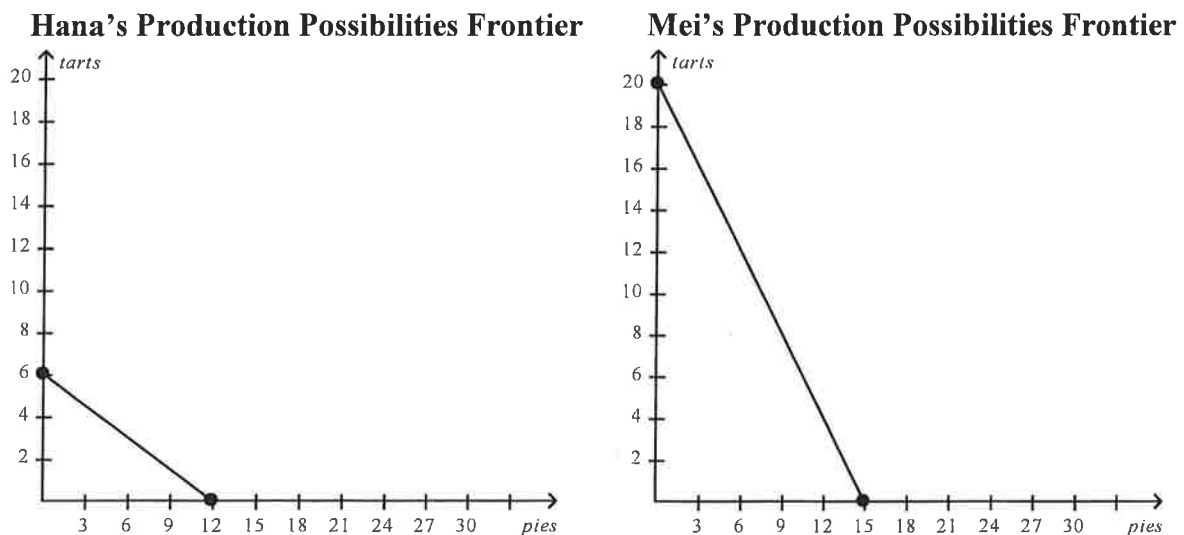
本科試題共計 11 頁

單選題（每題 2.5 分）

1. An economy makes only food and machines, and it always operates on its production possibilities frontier. Output last year was 1,000 units of food together with 47 machines; this year the figures are 1,050 units of food and 52 machines. Every one of the following could account for this rise in output except one. Which one?

- A. Unemployment fell.
- B. The amount of labor available grew.
- C. Technology improved.
- D. All of the events listed are capable of explaining the higher output.

Figure 1



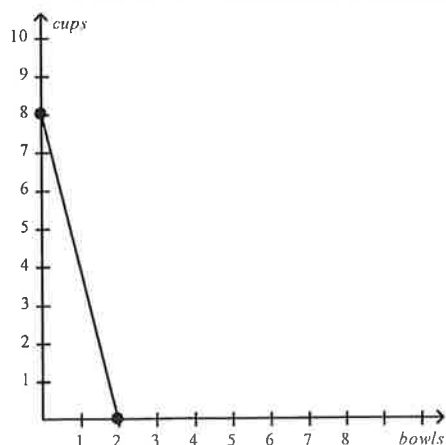
(horizontal axis: pies; vertical axis: tarts)

2. Refer to Figure 1. Suppose Hana's frontier represents 3 hours of labor. Based on this, how much time does Hana need to produce a single pie?

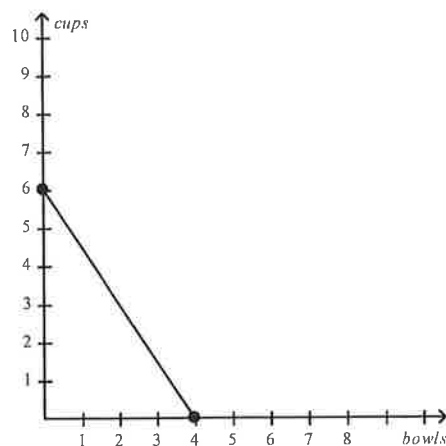
- A. 1/4 of an hour
- B. 1/3 of an hour
- C. 3 hours
- D. 4 hours

Figure 2

Priya's Production Possibilities Frontier



Aiko's Production Possibilities Frontier



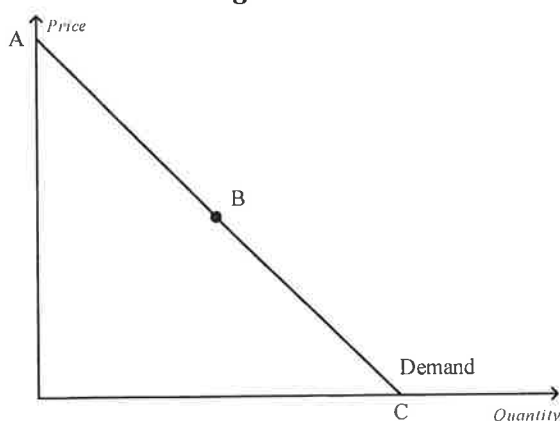
3. Refer to Figure 2. Imagine that both Priya and Aiko split their available time evenly between producing bowls and producing cups. What is their combined output?

- A. a total of 2 bowls and 6 cups
- B. a total of 3 bowls and 7 cups
- C. a total of 4 bowls and 8 cups
- D. a total of 6 bowls and 14 cups

4. In what way does the idea of elasticity deepen our understanding of demand and supply?

- A. It lets us study supply and demand with greater precision than we could manage without the concept.
- B. It provides a stronger justification for claims such as “a rise in x will cause y to fall” than we would otherwise have.
- C. Without it, we could not tell which direction price tends to move when a surplus or a shortage appears.
- D. Without it, judging how competitive a given market is becomes very difficult.

Figure 3



5. Refer to Figure 3. Take the portion of the demand curve running from B to C to cover prices from \$0 to \$15. When the price moves within the \$7-to-\$9 range, then

- A. the proportional change in quantity demanded is smaller than the proportional change in price.
- B. the proportional change in quantity demanded is larger than that of price.
- C. quantity demanded and price change by the same proportion.
- D. the price elasticity of demand is zero.

6. Refer to Figure 3. Should the price fall somewhere along the segment between points B and C, total revenue would be expected to

- A. rise.
- B. remain unchanged.
- C. fall.
- D. climb at first and then fall until it reaches its maximum.

7. When coffee costs \$10 per pound, Yuki buys 5 pounds of coffee and 10 gallons of milk each month. When the coffee price drops to \$8 per pound, her monthly purchases rise to 6 pounds of coffee and 12 gallons of milk. Yuki's cross-price elasticity of demand between coffee and milk equals

- A. 0.82, indicating the two goods are substitutes.
- B. -0.82, indicating the two goods are complements.
- C. 1.22, indicating the two goods are substitutes.
- D. -1.22, indicating the two goods are complements.

8. At an output of 100 car washes, Nadia's Car Wash reports an average variable cost of \$2 and an average fixed cost of \$3. The firm's total cost amounts to

- A. \$100.
- B. \$200.
- C. \$300.
- D. \$500.

Scenario A

Anita received \$1 million from part of settling an estate. She used the funds to buy a small business located in a town somewhere in Indonesia, and the business operates in a perfectly competitive industry. Had Anita instead placed the \$1 million in a risk-free bond fund, she could have earned \$100,000 per year. She also left her position at Lucky.Com Inc., where her annual salary was \$75,000, in order to devote all of her time to the new business.

9. Refer to Scenario A. For Anita to reach an economic profit of exactly zero, how large must her accounting profit be?

- A. \$100,000
- B. \$125,000
- C. \$175,000
- D. \$225,000

10. Which of the statements below is accurate?

- A. When a monopolist's marginal revenue is above its marginal cost, it can raise profit by lowering the per-unit price and selling additional units.
- B. When a monopolist's marginal revenue exceeds its marginal cost, it can raise profit by charging a higher per-unit price and selling fewer units.
- C. A monopolist producing where price equals the lowest point of average total cost earns positive economic profit.
- D. A monopolist that earns positive economic profit must be operating where MR equals MC.

11. A monopoly generates a deadweight loss because the monopoly's

- A. output falls short of the socially optimal level.
- B. price is equal to its marginal revenue.
- C. price coincides with its average revenue.
- D. operation yields positive profits.

Firm Crestline and Firm Meridian are two cigarette producers, they are being sued by governments seeking to recover healthcare costs linked to smoking. Both firms hold research showing that cigarette smoke causes lung cancer and other illnesses. Because government prosecutors cannot access the firms' data, they will struggle to recover the full costs unless at least one firm's study assists them. Each firm has been offered a chance to lower its own liability if it cooperates with the governments' attorneys.

Table 1

		Firm Meridian	
		<i>Admit smoke causes lung cancer</i>	<i>Claim no evidence links smoke to cancer</i>
Firm Crestline	<i>Admit smoke causes lung cancer</i>	A profit = \$-20; B profit = \$-15	A profit = \$-50; B profit = \$-5
	<i>Claim no evidence links smoke to cancer</i>	A profit = \$-5; B profit = \$-50	A profit = \$-10; B profit = \$-10

12. Refer to Table 1. Assuming each firm plays its dominant strategy, Firm Crestline will end up with a profit (loss) of
- \$-50
 - \$-20
 - \$-10
 - \$-5
13. For a competitive firm aiming to maximize profit, its value-of-marginal-product curve serves as
- a curve that is continually rising.
 - a curve that declines only while marginal product is increasing.
 - the firm's labor supply curve.
 - the firm's labor demand curve.
14. The difference between purchase price and rental price applies to which factor or factors of production?
- only land
 - only capital
 - only land and capital
 - land, capital, and labor alike
15. A professional gambler who relies on gambling for most of his income. He relocates from a place where gambling is banned to one where it is legal. Gambling supplied most of his income before the move and continues to do so afterward. His relocation
- increases GDP.
 - lowers GDP.
 - leaves GDP unchanged, since gambling is never counted in GDP.
 - leaves GDP unchanged, because his income is counted no matter where he lives.
16. The main idea of the consumer price index is to gauge how much consumer incomes must increase in order to keep constant a household's
- level of real GDP.
 - consumption-to-GDP ratio.
 - net-exports-to-GDP ratio.
 - standard of living.

17. Suppose real output has gone up in a country. In which of the following situations can we be certain that its productivity has risen as well?

- A. Total hours worked increased.
- B. Total hours worked stayed the same.
- C. Total hours worked declined.
- D. Both the second and the third cases apply.

18. In a closed economy, GDP equals 11,000, consumption equals 7,500, and taxes equal 2,000. At what level of government purchases would national saving be 1,000, and at that level would the government be running a deficit or a surplus?

- A. 2,500, with a deficit
- B. 2,500, with a surplus
- C. 1,000, with a deficit
- D. 1,000, with a surplus

19. The supply of loanable funds will shift to the right due to which pair of changes below?

- A. tax reforms that encourage more saving, or a shrinking budget deficit
- B. tax reforms that encourage more saving, or larger investment tax credits
- C. a growing budget deficit, or larger investment tax credits
- D. a growing budget deficit, or tax reforms that discourage saving

Table 2

Harmony Bank

Assets		Liabilities	
Reserves	\$2,000	Deposits	\$20,000
Loans	18,000		

20. Refer to Table 2. With the central bank's reserve requirement set at 9 percent, how much in excess reserves does Harmony Bank currently hold?

- A. \$200
- B. \$250
- C. \$400
- D. \$1,000

21. During the recession of 2008-2009, which action did the Fed take?

- A. It cut the federal funds rate while selling securities and loans.
- B. It cut the federal funds rate while purchasing securities and loans.
- C. It raised the federal funds rate while selling securities and loans.
- D. It raised the federal funds rate while purchasing securities and loans.

22. Consider the following chain of events:

a rise in the price level $\uparrow \Rightarrow$ money demand $\uparrow \Rightarrow$ equilibrium interest rate $\uparrow \Rightarrow$ quantity of goods and services demanded $\downarrow$

This chain helps explain why the

- A. money-supply curve is vertical.
- B. aggregate-demand curve shifts to the left following a monetary injection.
- C. aggregate-demand curve shifts to the right following a monetary injection.
- D. aggregate-demand curve slopes downward.

Suppose that Japan and Korea can each switch between producing cheese and producing bread at a constant rate.

Table 3

	Labor hours to make 1 unit of		Units produced in 40 hours	
	Cheese	Bread	Cheese	Bread
Japan	1	4	40	10
Korea	4	8	10	5

23. Refer to Table 3. Using the table, one could draw a production possibilities frontier for Japan and a second one for Korea. If bread is placed on the horizontal axis, then

- A. Japan's frontier would have a slope of -4 and Korea's a slope of -2.
- B. Japan's frontier would have a slope of -0.25 and Korea's a slope of -0.5.
- C. Japan's frontier would have a slope of 0.25 and Korea's a slope of 0.5.
- D. Japan's frontier would have a slope of 4 and Korea's a slope of 2.

24. Suppose that, at the same time, gasoline becomes more expensive, steel becomes cheaper, public transit becomes cheaper and more comfortable, autoworkers accept lower wages, and car insurance becomes pricier. Treat new cars as normal goods. What happens to the equilibrium price of new cars?

- A. It rises.
- B. It falls.
- C. It stays exactly the same.
- D. The direction of the change cannot be determined.

25. When wheat sells \$3 per bushel, farmers can sell 8 million bushels; at \$2 per bushel, they can move 10 million bushels. Which statement is true? The demand for wheat is

- A. income inelastic, so a higher wheat price would raise wheat farmers' total revenue.
- B. income elastic, so a higher wheat price would raise wheat farmers' total revenue.
- C. price inelastic, so a higher wheat price would raise wheat farmers' total revenue.
- D. price elastic, so a higher wheat price would raise wheat farmers' total revenue.

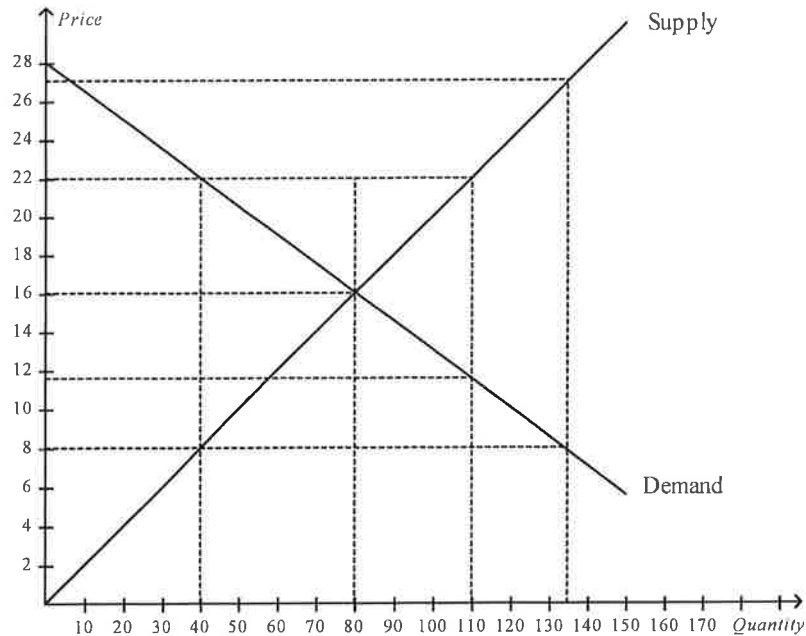
26. Sellers of good Y collected \$100 in total revenue by selling 50 units last month. This month, after raising the price, they collected \$120 from 40 units. Over the same period the price of good X was unchanged, yet unit sales of X climbed from 20 to 40. We can conclude that goods X and Y are

- A. substitutes, with a cross-price elasticity of 0.60.
- B. complements, with a cross-price elasticity of 0.60.
- C. substitutes, with a cross-price elasticity of 1.67.
- D. complements, with a cross-price elasticity of 1.67.

27. Which of the following conditions would be consistent with cracking down on illegal drugs leading both to fewer drugs being sold and to lower total spending on illegal drugs by users?

- A. The crackdown shifts the demand curve for illegal drugs to the right.
- B. The price elasticity of demand for illegal drugs equals 1.3.
- C. The price elasticity of supply for illegal drugs equals 0.8.
- D. Because of the crackdown, the price of illegal drugs rises by 20 percent while the quantity sold falls by 16 percent.

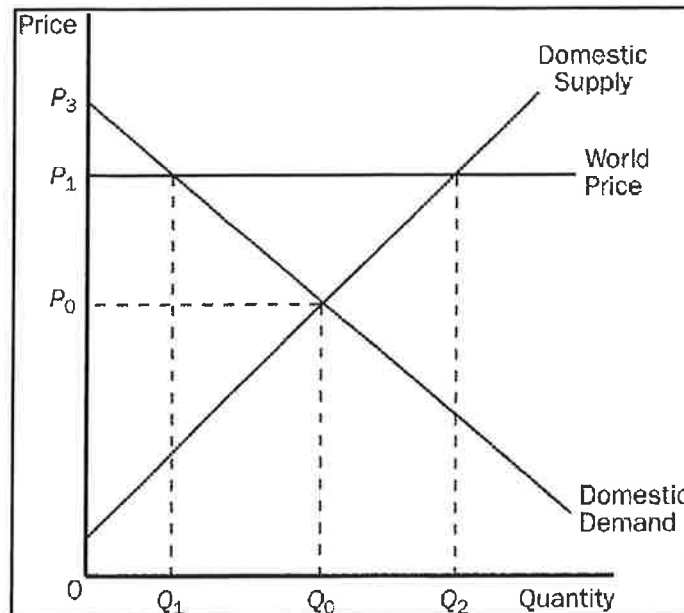
Figure 4



28. Refer to Figure 4. Suppose demand rises so that the equilibrium price climbs to \$22 and the equilibrium quantity grows to 110. For producers already operating in the market, the gain in producer surplus would equal

- A. \$90.
- B. \$210.
- C. \$360.
- D. \$480.

Figure 5. This figure applies to the country of Nepal, and the good is cheese.



29. Refer to Figure 5. Which expression correctly gives Nepal's consumer surplus once trade takes place?

- A. Consumer surplus with trade = $(1/2)(Q_0)(P_1 - P_0)$.
- B. Consumer surplus with trade = $(1/2)(Q_0)(P_3 - P_0)$.
- C. Consumer surplus with trade = $(1/2)(Q_1)(P_3 - P_1)$.
- D. None of these is correct.

Table 4

There are three families in a small town: the Tan family, the Lim family, and the Wong family. There is currently no streetlights in town, so nights are very dark. The three families are weighing whether to install streetlights along the main road and, if so, how many. The table below lists each family's willingness to pay for each streetlight.

Number of Streetlights	The Tan Family	The Lim Family	The Wong Family
1	\$170	\$240	\$210
2	130	190	200
3	80	130	170
4	20	65	120
5	0	25	50
6	0	0	10

30. Refer to Table 4. Each streetlight costs \$180 to install, and the three families have agreed to share that cost equally. If they vote on how many to install, with each family voting purely according to its own willingness to pay (so as to maximize its own surplus), what is the largest number of streetlights a majority would still approve?

- A. 1 streetlight
- B. 2 streetlights
- C. 3 streetlights
- D. 4 streetlights

Scenario B

Assume $P = 20 - Q$ represents the market demand for a good, and that the corresponding marginal revenue is $MR = 20 - 2Q$.

31. Refer to Scenario B. If the marginal cost of producing the good is zero, what total consumer surplus would buyers obtain in this market?

- A. 10
- B. 20
- C. 50
- D. 100

Table 5

The total demand for high-speed Internet subscriptions in a small urban market is shown in the table below. Each provider faces an annual fixed cost of \$200,000, and the marginal cost of supplying one additional subscription is always \$80.

Quantity	Price (per year)
0	\$320
2,000	\$280
4,000	\$240
6,000	\$200
8,000	\$160
10,000	\$120
12,000	\$80
14,000	\$40
16,000	\$0

32. Refer to Table 5. If a single high-speed Internet provider serves this market and seeks to maximize profit, it will

- A. provide 6,000 subscriptions priced at \$200 each.
- B. provide 8,000 subscriptions priced at \$160 each.
- C. provide 10,000 subscriptions priced at \$120 each.
- D. provide 12,000 subscriptions priced at \$80 each.

33. Hiro and Kenji compete in a local market, and each must choose among advertising on TV, advertising on radio, or not advertising at all. The profit outcomes are these: if both choose TV, each earns \$4,000; if both choose radio, each earns \$7,000; if neither advertises, each earns \$10,000. When one chooses TV and the other radio, the TV advertiser earns \$6,000 and the radio advertiser \$5,000. When one chooses TV and the other does not advertise, the TV advertiser earns \$11,000 and the other \$2,000. When one chooses radio and the other does not advertise, the radio advertiser earns \$12,000 and the other \$4,000. If both play their dominant strategy, Hiro will

- A. advertise on TV and earn \$4,000.
- B. advertise on radio and earn \$7,000.
- C. advertise on TV and earn \$11,000.
- D. skip advertising and earn \$10,000.

34. Mira and Sunita compete in a local market, and each is deciding whether advertising is worthwhile. If both advertise, each earns a profit of \$5,000. If neither advertises, each earns \$10,000. If just one of them advertises, that firm earns \$12,000 while the other earns \$2,000. In this prisoners'-dilemma setting, when the game is played only once, Mira should

- A. advertise, though if the game were repeated many times she would probably not advertise.
- B. advertise, and even with many repetitions she should probably keep advertising.
- C. not advertise, but with many repetitions she would probably switch to advertising.
- D. not advertise, and even with many repetitions she should still not advertise.

Table 6

The game of Chicken takes its name from a contest in which drivers prove their nerve by heading straight toward one another. Wei and Jun share an interest in avoiding a collision, yet each also has a private, competing interest in not being the first to swerve, so as to display courage to the onlookers. The payoff table is shown below, with each entry written as (Wei, Jun).

		Jun	
		Turn	Drive Straight
Wei	Turn	(10, 10)	(5, 20)
	Drive Straight	(20, 5)	(0, 0)

35. Refer to Table 6. In this game of Chicken, how many Nash equilibria are there?

- A. 0
- B. 1
- C. 2
- D. 3

36. Suppose workers migrate into Thailand from Vietnam. Which of the following correctly describes what would happen in Thailand's labor market?

- A. The equilibrium wage would rise and the quantity of labor would rise; with more workers, an extra worker adds more output.
- B. The equilibrium wage would fall and the quantity of labor would fall; with fewer workers, an extra worker adds less output.
- C. The equilibrium wage would fall while the quantity of labor would rise; with more workers, an extra worker adds less output.
- D. The equilibrium wage would fall while the quantity of labor would rise; with more workers, an extra worker adds more output.

37. How would consumer surplus change if the demand for a good rises while its supply stays unchanged?

- A. decreases.
- B. is unchanged.
- C. increases.
- D. may increase, decrease, or stay the same.

Table 7

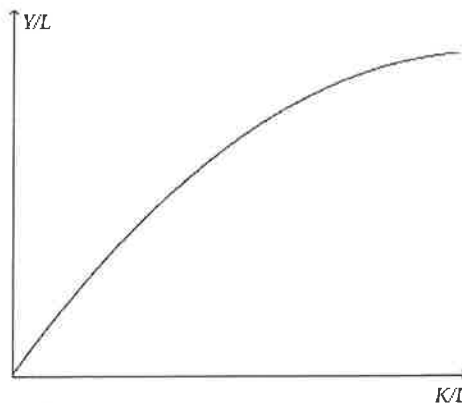
	Voter Type			
	Type 1	Type 2	Type 3	Type 4
Percent of electorate	32	20	15	33
First choice	D	C	A	B
Second choice	C	A	D	D
Third choice	B	D	B	A
Fourth choice	A	B	C	C

38. Refer to Table 7. The table lists how four voter types rank four possible outcomes (A, B, C, and D), along with the share of the electorate each type makes up. Imagine a Borda count is held in which every voter ranks the four outcomes, awarding 1 point to last place, 2 to second-to-last, 3 to the second best, and 4 to the best. Which outcome wins?

- A. A
- B. B
- C. C
- D. D

Figure 6

The vertical axis measures output per worker, Y/L ; the horizontal axis measures capital per worker, K/L .



39. Refer to Figure 6. Pick any point, label it point A, on the curve. If the economy sits at point A in 2031, it is guaranteed to still be at point A in 2032 provided that, between 2031 and 2032,

- A. physical capital stays fixed, the workforce doubles, and human capital, natural resources, and technology all double.
- B. physical capital doubles; human capital, natural resources, and technology all double; and the workforce stays the same.
- C. physical capital doubles, the workforce doubles, and human capital, natural resources, and technology all double.
- D. physical capital doubles, the workforce doubles, while human capital, natural resources, and technology stay constant.

40. Some individuals are not counted in the labor force because they have made no serious or recent effort to look for jobs. Yet some of them might actually want a job and are merely too discouraged to search seriously. If these people were instead counted as unemployed rather than out of the labor force, then

- A. both the unemployment rate and the labor-force participation rate would be higher.
- B. the unemployment rate would be higher while the labor-force participation rate would be lower.
- C. the unemployment rate would be lower while the labor-force participation rate would be higher.
- D. both the unemployment rate and the labor-force participation rate would be lower.