

## **Chapter 2—The Economic Way of Thinking**

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### **TRUE/FALSE**

1. If Xavier gives up a job in which he earns \$23,000 per year in order to go to college full time, his foregone income is part of the opportunity cost of going to college.

ANS: T                      PTS: 1                      DIF: E  
TOP: 2.1 Choices, Costs and Trade-Offs | To Choose Is to Lose

2. The opportunity cost of attending college is likely higher for a high school graduate who leaves a job grilling hamburgers than it is for someone who would have to leave a job working as a computer network administrator to do so.

ANS: F                      PTS: 1                      DIF: M  
TOP: 2.1 Choices, Costs and Trade-Offs | To Choose Is to Lose

3. The opportunity cost of a decision is the value of the best foregone alternative.

ANS: T                      PTS: 1                      DIF: E  
TOP: 2.1 Choices, Costs and Trade-Offs | To Choose Is to Lose

4. The opportunity cost of a decision is the value of all of the available alternatives that were not chosen.

ANS: F                      PTS: 1                      DIF: E  
TOP: 2.1 Choices, Costs and Trade-Offs | To Choose Is to Lose

5. A permanent change to a much higher price of gasoline would lead us to expect fewer gas guzzlers on the road, ceteris paribus.

ANS: T                      PTS: 1                      DIF: M  
TOP: 2.2 Marginal Thinking | Many Choices We Face Involve Marginal Thinking

6. Marginal cost is the additional cost incurred as a result of an economic decision.

ANS: T                      PTS: 1                      DIF: E  
TOP: 2.2 Marginal Thinking | Many Choices We Face Involve Marginal Thinking

7. When considering whether or not to consume a second slice of cake, an individual is following marginal thinking if she compares the total cost of consuming both the first and second slices with their total benefit before making a decision.

ANS: F                      PTS: 1                      DIF: M  
TOP: 2.2 Marginal Thinking | Many Choices We Face Involve Marginal Thinking

8. Economists would predict that if salaries increased for engineers and decreased for MBAs that a decreasing number of people would go to graduate school in business and more would go in engineering, ceteris paribus.

ANS: T                      PTS: 1                      DIF: M  
TOP: 2.3 People Respond Predictably to Changes in Incentives | Positive and Negative Incentives

9. Since it is possible to grow coffee in the United States, we should clearly create a U.S. coffee industry and no longer import coffee from Brazil.

ANS: F                      PTS: 1                      DIF: M

TOP: 2.3 Specialization and Trade | Specialization and Trade Lead to Greater Wealth and Prosperity

10. A country has a comparative advantage in the production of DVD players if it can produce DVD players at a lower opportunity cost than others.

ANS: T                      PTS: 1                      DIF: E

TOP: 2.3 Specialization and Trade | Why Do People Specialize?

11. Small, developing countries must first become self-sufficient before they can benefit from international trade.

ANS: F                      PTS: 1                      DIF: M

TOP: 2.3 Specialization and Trade | Specialization and Trade Lead to Greater Wealth and Prosperity

12. An increase in production of one good can have zero opportunity cost only if an economy initially operated at a point inside the production possibilities curve.

ANS: T                      PTS: 1                      DIF: M

TOP: 2.4 The Production Possibilities of an Economy | The Production Possibilities Curve

13. An economy that has many unemployed workers and idle factories is not operating efficiently.

ANS: T                      PTS: 1                      DIF: E

TOP: 2.4 The Production Possibilities of an Economy | Inefficiency and Efficiency

14. The production possibilities curve marks the boundary between attainable and unattainable combinations of output.

ANS: T                      PTS: 1                      DIF: E

TOP: 2.4 The Production Possibilities of an Economy | The Production Possibilities Curve

15. Output combinations outside the production possibilities curve is attainable in the current period only if prices decrease.

ANS: F                      PTS: 1                      DIF: E

TOP: 2.4 The Production Possibilities of an Economy | The Production Possibilities Curve

16. A decrease in the unemployment rate will shift an economy's production possibilities curve outward.

ANS: F                      PTS: 1                      DIF: M

TOP: 2.4 The Production Possibilities of an Economy | Inefficiency and Efficiency

17. An increase in available resources will tend to cause a society's production possibilities curve to shift inward.

ANS: F                      PTS: 1                      DIF: E

TOP: 2.4 The Production Possibilities of an Economy | Generating Economic Growth

18. An improvement in technology will tend to cause a society's production possibilities curve to shift outward.

ANS: T                      PTS: 1                      DIF: E  
TOP: 2.4 The Production Possibilities of an Economy | Generating Economic Growth

19. The opportunity cost of a particular good tends to increase with its rate of output because some resources cannot be easily adapted from the production of one good or service to another.

ANS: T                      PTS: 1                      DIF: E  
TOP: 2.4 The Production Possibilities of an Economy | The Law of Increasing Opportunity Cost

20. The production possibilities curve for an economy that experiences a constant opportunity cost of production is linear (a straight line).

ANS: T                      PTS: 1                      DIF: M  
TOP: 2.4 The Production Possibilities of an Economy | The Production Possibilities Curve

21. The law of increasing opportunity costs implies that a society's production possibilities curve will be a straight line.

ANS: F                      PTS: 1                      DIF: M  
TOP: 2.4 The Production Possibilities of an Economy | The Law of Increasing Opportunity Cost

22. Movement from one point on the production possibilities curve to another leads to more of both goods being produced.

ANS: F                      PTS: 1                      DIF: E  
TOP: 2.4 The Production Possibilities of an Economy | The Law of Increasing Opportunity Cost

23. An increase in an economy's capital stock increases its future productive capacity.

ANS: T                      PTS: 1                      DIF: E  
TOP: 2.4 The Production Possibilities of an Economy | Growth Does Not Eliminate Scarcity

24. Other things being constant, an economy must give up some consumer goods and services today to produce more capital goods in order to grow.

ANS: T                      PTS: 1                      DIF: E  
TOP: 2.4 The Production Possibilities of an Economy | Growth Does Not Eliminate Scarcity

25. Capital accumulation causes the production possibilities curve to shift inward over time.

ANS: F                      PTS: 1                      DIF: E  
TOP: 2.4 The Production Possibilities of an Economy | Growth Does Not Eliminate Scarcity

26. A straight line production possibilities curve implies increasing opportunity costs.

ANS: F                      PTS: 1                      DIF: E  
TOP: 2.4 The Production Possibilities of an Economy | The Law of Increasing Opportunity Cost

27. In a market economy, government officials make most production decisions in a centralized manner.

ANS: F                      PTS: 1                      DIF: E  
TOP: 2.5 Economic Systems | What Goods and Services Will Be Produced?

28. Consumer sovereignty means that consumers vote with their dollars in a market economy, which helps determine what is produced.

ANS: T                      PTS: 1                      DIF: E  
TOP: 2.5 Economic Systems | What Goods and Services Will Be Produced?

29. In a market economy, prices help determine the distribution of goods and services but not the allocation of resources.

ANS: F                      PTS: 1                      DIF: E  
TOP: 2.5 Economic Systems | How Will the Goods and Services Be Produced?

30. Capital-intensive production techniques tend to be utilized most commonly in countries where labor is relatively cheap.

ANS: F                      PTS: 1                      DIF: E  
TOP: 2.5 Economic Systems | How Will the Goods and Services Be Produced?

31. High wage countries like the United States tend to use less labor-intensive production methods than low wage countries like Mexico.

ANS: T                      PTS: 1                      DIF: M  
TOP: 2.5 Economic Systems | How Will the Goods and Services Be Produced?

## SHORT ANSWER

1. Maggie is a potter and she likes to dig her own clay for producing pots, cups and other ceramic items. She is aware of two places where she can obtain the right clay for her work. The first field is quite close, just at the edge of town. The second field is 15 miles away and (since there are no access roads) requires a half-day of travel just to get there. Compare the opportunity cost of producing pots using clay from each of these fields.

ANS:

The opportunity cost of the clay necessary for her work is higher at the second field. Maggie would have to spend more time traveling, consume more gasoline, and use extra time and energy to dig from the second field.

PTS: 1                      DIF: E  
TOP: 2.1 Choices, Costs, and Trade-Offs | To Choose Is to Lose

2. Explain why each of the following is considered an economic issue:
- whether to spend Saturday afternoon at a football game
  - obtaining tickets to a U2 concert
  - your university considers your application for one of 25 available scholarships

ANS:

Each of the following are economic issues that illustrate scarcity and the necessity of making choices:

- The decision as to whether to spend Saturday afternoon at a football game involves weighing the marginal benefit versus the marginal cost. There is an opportunity cost associated with going to the football game since you could spend the time in other ways, such as studying or working.
- Attending a U2 concert requires a sacrifice of both money and time. Individuals face a tradeoff between what could be done with the time and the dollars expended acquiring

- tickets and attending the concert.
- c. Since there are a limited number of scholarships and many students who would wish to receive one, the university must decide to whom to allocate these scarce scholarship resources.

PTS: 1 DIF: M  
TOP: 2.2 Marginal Thinking | Many Choices We Face Involve Marginal Thinking

3. Why do people generally switch channels when a movie's final credits are being displayed?

ANS:  
Individuals will only pursue an activity if expected marginal benefits are greater than the expected marginal costs. If you perceive the marginal benefits of watching something else to be greater than watching the credit line of the movie, you may choose to switch channels.

PTS: 1 DIF: E  
TOP: 2.2 Marginal Thinking | Many Choices We Face Involve Marginal Thinking

4. Would it make good sense for a community to seek to reduce its levels of pollution to zero? Why or why not?

ANS:  
In general it would not make sense for a community to seek to reduce pollution levels to zero because the costs involved would exceed the benefits received.

PTS: 1 DIF: E  
TOP: 2.2 Marginal Thinking | Many Choices We Face Involve Marginal Thinking

5. If race-car driving is dangerous, why would any rational person choose to be a race-car driver?

ANS:  
A rational person might choose to drive race cars if, after assessing the potential dangers, he or she believes the expected marginal benefit from racing outweighs the expected marginal cost.

PTS: 1 DIF: E  
TOP: 2.2 Marginal Thinking | Many Choices We Face Involve Marginal Thinking

6. Assume that Colombia can produce 1,000 pounds of coffee in one day or produce 200 pounds of bananas in one day. In addition, assume that Ecuador can produce 300 pounds of coffee in one day or produce 100 pounds of bananas in one day. Which country has the comparative advantage in coffee and which has the comparative advantage in bananas? Determine a pattern of trade regarding these countries and these goods that would benefit both countries.

ANS:  
Colombia has the comparative advantage in coffee because its opportunity cost of one pound of coffee is only 0.2 pounds of bananas while Ecuador's is 0.33 pounds of bananas. Ecuador has the comparative advantage in bananas because its opportunity cost of one pound of bananas is only three pounds of coffee while Colombia's is five pounds of bananas. If Ecuador traded one pound of bananas to Colombia for between three and five pounds of coffee, both countries could enjoy greater consumption and be better off.

PTS: 1 DIF: D  
TOP: 2.3 Specialization and Trade | Specialization and Trade Lead to Greater Wealth and Prosperity

7. Farmer Fred could grow wheat and barley. He could grow 75 bushels of wheat or 125 bushels of barley using the same resources on an acre of his land. The price of wheat is \$2.00 per bushel and the price of barley \$ 0.80. Show the benefits to Fred from specialization. What should he specialize in?

ANS:

Farmer Fred could make \$150 if he grew only wheat and just \$100 if he grew only barley. By specializing in wheat production he will be better off. Even though he can produce more bushels of barley than he can bushels of wheat, his opportunity cost of producing wheat (the \$100 income sacrificed. is lower than the opportunity cost of producing barley (\$150 in sacrificed income).

PTS: 1

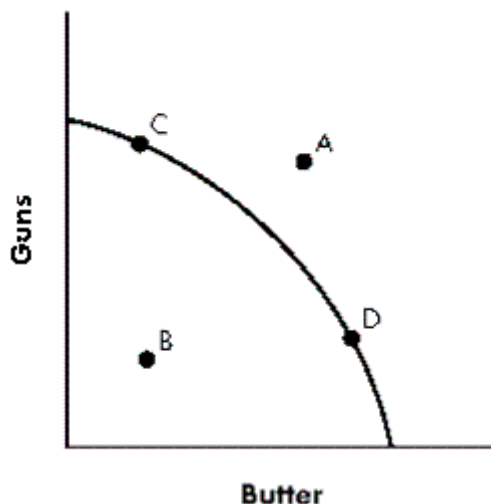
DIF: M

TOP: 2.3 Specialization and Trade | The Advantages of Specialization

8. Draw a picture of a production possibilities curve. Identify each axis as measuring either guns or butter. Select and label Point A, which is beyond the economy's ability to produce; Point B, which represents an inefficient level of production; Point C, an efficient combination of output in which more guns are produced than units of butter; and Point D, an efficient production point in which more units of butter are produced than guns. Be sure to label each clearly.

ANS:

Diagrams will vary. A correct diagram should look something like the following:



PTS: 1

DIF: M

TOP: 2.4 The Production Possibilities of an Economy | The Production Possibilities Curve

9. What are the factors that can cause a shift in the production possibilities curve?

ANS:

Advancement in technology, improvements in labor productivity, or new sources of natural resources could lead to outward shifts of the production possibilities curve.

PTS: 1

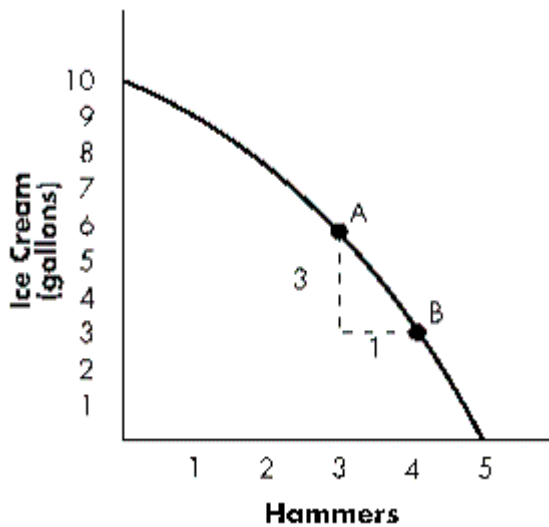
DIF: E

TOP: 2.4 The Production Possibilities of an Economy | Generating Economic Growth

10. How can we measure the opportunity cost of producing a good? Using a bowed outward production possibilities curve between ice cream and hammers, identify graphically the opportunity cost of obtaining an additional hammer.

ANS:

Diagrams will vary. A correct diagram should look something like the following:



The opportunity cost of a hammer is the quantity of ice cream that must be sacrificed in order to produce an additional hammer. For example, moving from Point A to Point B in the above diagram, we can see that 3 gallons of ice cream are sacrificed in order to produce one additional hammer.

PTS: 1

DIF: M

TOP: 2.4 The Production Possibilities of an Economy | The Law of Increasing Opportunity Cost

11. Does economic growth eliminate scarcity?

ANS:

Growth does not eliminate scarcity. When output grows more rapidly than population, people are better off. But they still face trade-offs. At any point along the production possibilities curve, to get more of one thing, one must give up something else.

PTS: 1

DIF: E

TOP: 2.4 The Production Possibilities of an Economy | Growth Does Not Eliminate Scarcity

12. Explain how each of the following could discourage economic growth:
- The government closes all of the schools so that more people will be available for work.
  - The country fears military invasion and spends half of its income on military goods.

ANS:

Economic growth depends on a country's willingness to sacrifice current consumption and invest in physical and/or human capital goods. Expanding the country's capital stock or improving the quality of its labor force allows it to produce more goods and services. Closing all of the schools will mean sacrificing investment in human capital in favor of current consumption. Likewise, choosing to spend half of available income on military goods will leave fewer resources for investment in nonmilitary physical or human capital.

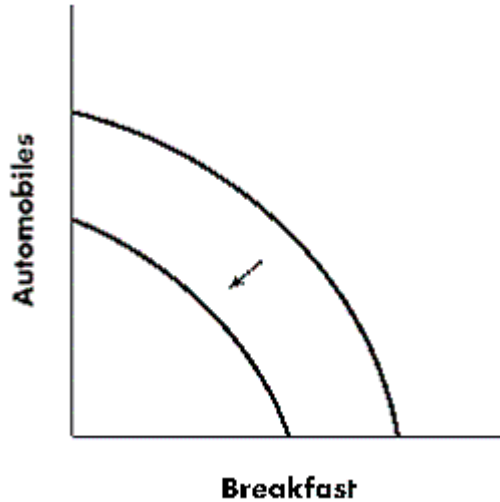
PTS: 1

DIF: M

TOP: 2.4 The Production Possibilities of an Economy | Generating Economic Growth

13. Illustrate a production possibilities curve for automobiles and breakfast cereal that is bowed outward. Show what is likely to happen to the production possibilities curve as a result of a devastating war on a country's home soil.

ANS:



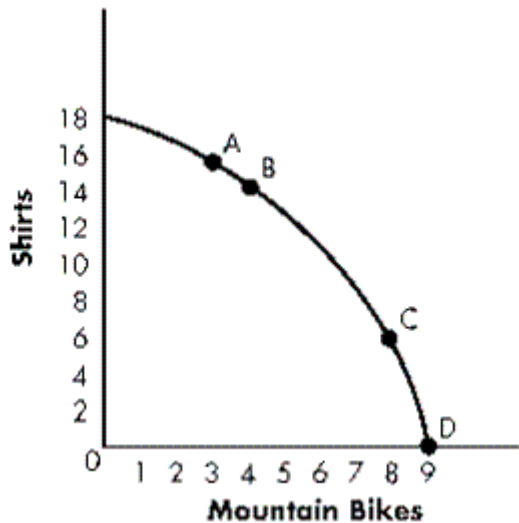
The production possibilities curve is likely to shift inward when economic resources are destroyed during a war.

PTS: 1

DIF: E

TOP: 2.4 The Production Possibilities of an Economy | Generating Economic Growth

#### Exhibit 2-14



14. Refer to **Exhibit 2-14**. Moving from Point A to Point B, what is the opportunity cost of producing a mountain bike?

ANS:

Two shirts

PTS: 1

DIF: E

TOP: 2.4 The Production Possibilities of an Economy | The Law of Increasing Opportunity Cost



15. Refer to **Exhibit 2-14**. Moving from Point C to Point D, what is the opportunity cost of producing a mountain bike?

ANS:

Six shirts

PTS: 1

DIF: E

TOP: 2.4 The Production Possibilities of an Economy | The Law of Increasing Opportunity Cost

16. Refer to **Exhibit 2-14**. Why is the opportunity cost of producing a mountain bike different when moving from Point A to Point B than when moving from Point C to Point D along the production possibilities curve?

ANS:

Some resources are more substitutable across productive tasks than are others. In moving from Point A to Point B, resources that are useful for producing bikes but less useful for producing shirts can be reallocated from shirt manufacturing toward bike manufacturing. Further increases in mountain bike production, such as the movement from Point C to Point D, can be obtained only by reallocating resources that are less well suited for bike production away from the production of shirts. As a result, the opportunity cost (in terms of the number of shirts sacrificed) increases as mountain bike production increases.

PTS: 1

DIF: M

TOP: 2.4 The Production Possibilities of an Economy | The Law of Increasing Opportunity Cost

17. It can be said that, ultimately, consumers are the driving force behind answers to the three basic economic questions faced by societies. Explain the consumer's role in providing these answers.

ANS:

What will be produced is directly determined by businesses. However, firms are aware that the way to succeed is to offer products that consumers find desirable. What businesses produce is determined by what they believe consumers want. How goods are produced is determined by firms that seek to reduce the costs of production. Since consumers are price conscious, they will buy lower-priced products (*ceteris paribus*). The consumers who have earned sufficient wealth and are willing to spend their wealth on these products are the individuals who will ultimately receive these products.

PTS: 1

DIF: M

TOP: 2.5 Economic Systems | Who Will Get the Goods and Services Produced?