TT TEXTBOOK TESTBANKS

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Ch 01: MC

1. Adam Smith believed that if people were free to pursue their own interests,
   a. less would be produced than if altruism were the guiding principle.
   b. the public interest would be served quite well.
   c. they would generally apply their talents to unproductive activities that would generate little value to society.
   d. they would have little incentive to undertake productive activities.

ANSWER: b

2. Modern economics as a field of study is usually thought to have begun with
   a. Adam Smith and the writing of *The Wealth of Nations*.
   b. David Ricardo and the writing of *The Principles of Political Economy and Taxation*.
   c. Aristotle and the writing of *Politics and Ethics*.
   d. John Maynard Keynes and the writing of *The General Theory of Employment, Interest and Money*.

ANSWER: a

3. Which of the following was a key belief of Adam Smith?
   a. he felt that human goodness would provide adequate goods and services to everyone.
   b. he stressed that limited exchange and command economies would prevent the exploitation of the poor.
   c. he believed that individuals pursuing their own interests would direct economic activity in the most advantageous way.
   d. he lectured about the importance of gold and silver in providing a stable monetary system.

ANSWER: c

4. According to Adam Smith, individual self-interest
   a. is a powerful force for economic progress when individuals are wisely directed by a strong central government.
   b. is a powerful force for economic progress when it is directed by competitive markets.
   c. is a major factor in retarding the economic progress of humankind.
   d. could be either a positive or negative force for economic progress, depending on the moral influences of political leaders.

ANSWER: b

5. The basic ingredients in any economic decision are
   a. scarcity and choice.
   b. surpluses and shortages.
   c. market prices and the use of efficient production methods.
   d. needs and wants.

ANSWER: a

6. Economic choice and competitive behavior are the result of
   a. poverty.
   b. public ownership of resources.
   c. scarcity.
   d. private ownership of resources.

ANSWER: c

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7. For the typical student, taking an introductory course in economics should
   a. turn the student into an economist.
   b. teach the student solutions to most social problems.
   c. teach the student how to answer complex social questions.
   d. help the student learn to rationally analyze social problems.

ANSWER: d

8. When a society cannot produce all the goods and services people wish to have, it is said that the economy is experiencing
   a. scarcity.
   b. shortages.
   c. inefficiencies.
   d. inequities.

ANSWER: a

9. Which of the following is the best definition of economics?
   a. An investigation of the quantities and prices of the various goods produced by the nations of the world.
   b. An analysis of how individuals and societies deal with the problem of scarcity.
   c. An examination of the role that money plays in the economy.
   d. A study of how goods and services are distributed throughout the world.

ANSWER: b

10. Economics is primarily the study of
   a. how to make money in the stock market.
   b. how to operate a business successfully.
   c. the allocation of scarce resources in an effort to satisfy wants that are virtually unlimited.
   d. the methods business firms use to reduce their costs of production.

ANSWER: c

11. Some individuals or families can become completely saturated with a service such as television. This suggests that
   a. a highly productive economy may someday be able to satisfy all human desires
   b. desires for a single commodity can be satisfied but then the focus will switch to other goods and services
   c. resources are not truly fixed in supply as we generally assume
   d. scarcity does not exist

ANSWER: b

12. In economics, the term "scarcity" refers to the fact that
   a. everything really worthwhile costs money.
   b. even in wealthy countries like the United States, some people are poor.
   c. no society can produce enough to satisfy fully the desires of people for goods and services.
   d. sometimes shortages of a good arise when its price is set below the market equilibrium.

ANSWER: c

13. When economists say a good is scarce, they mean

a. there are only a limited number of consumers who would be interested in purchasing the good.
b. the human desire for the good exceeds the amount freely available from nature.
c. most people in poorer countries do not have enough of the good.
d. the production of the good has no opportunity cost for society.

ANSWER: b

14. When economists say goods are scarce, they mean
a. consumers are too poor to afford the goods and services available.
b. consumers are unwilling to buy goods unless they have very low prices.
c. goods are generally freely available from nature in most countries.
d. the desire for goods and services exceeds our ability to produce them with the limited resources available.

ANSWER: d

15. If scarcity were eliminated,
a. individuals would have to make trade-offs.
b. individuals would have to make many choices.
c. individuals would have limited resources.
d. all goods would be free.

ANSWER: d

16. If a good is scarce,
a. there will be shortages of it if the good is rationed by markets.
b. the good will have a price in a market setting.
c. there will be enough of the good freely available from nature to satisfy the human desire for it.
d. all goods are free.

ANSWER: b

17. Criteria for rationing goods and resources must be established because of
a. the law of comparative advantage.
b. the use of capitalism as a form of economic organization.
c. the inability of politicians to develop efficient forms of economic organization.
d. scarcity imposed by nature.

ANSWER: d

18. Every economy must ration goods in some way because of
a. overpopulation.
b. poorly-performing markets.
c. the income gap between rich and poor.
d. scarcity.

ANSWER: d

19. Which of the following is true of resources?
a. Physical resources reflect the skills and productive knowledge of human beings.
b. Human resources represent the productive capabilities of tools and machinery.

c. With the passage of time, investment activities can decrease the availability of resources.

d. Resources are inputs used to produce goods and services.

ANSWER: d

20. Ex-London School of Economics student Mick Jagger sang, "You can't always get what you want, but if you try sometime, you just might find you can get what you need." These lyrics indicate that:

a. With scarcity, you may be able to satisfy your wants, but your needs will never be met.

b. While desires for goods are virtually unlimited, you can still get a lot of the things you need.

c. If you try, you can create the supply to meet your own demand.

d. If social welfare is maximized, your wants will be satisfied.

ANSWER: b

21. Capital is a term economists use to refer to

a. man-made resources used to produce other goods and services.

b. resources that are available in nature such as mineral deposits.

c. money that is used to consume goods and services, to distinguish it from money that is saved.

d. the value of the best alternative to an action.

ANSWER: a

22. The three major categories of resources are

a. human resources, physical resources, and natural resources.

b. scarce resources, capital resources, and abundant resources.

c. financial resources, global resources, and local resources.

d. common resources, private resources, and capital resources.

ANSWER: a

23. In economics, man-made resources such as tools, equipment, and structures that are used to produce other goods and services are referred to as

a. consumer goods.

b. capital.

c. marginal goods.

d. infrastructures.

ANSWER: b

24. Which of the following best describes the difference between an objective concept and a subjective concept?

a. A subjective concept is a fact based on observation that is not subject to personal opinion, while an objective concept is based on personal preferences and value judgments.

b. An objective concept is a fact based on observation that is not subject to personal opinion, while a subjective concept is based on personal preferences and value judgments.

c. A subjective concept relates to issues in microeconomics, while an objective concept relates to issues in macroeconomics.

d. An objective concept can only be illustrated in words, while a subjective concept can usually be illustrated with a graph.

ANSWER: b

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25. A fact based on observable phenomenon that is not influenced by differences in personal opinion is called
    a. an objective concept.
    b. a subjective concept.
    c. an unintended consequence.
    d. *ceteris paribus.*

ANSWER: a

26. An opinion based on personal preferences and value judgments is called
    a. an objective concept.
    b. a subjective concept.
    c. an unintended consequence.
    d. *ceteris paribus.*

ANSWER: b

27. When price is the rationing criterion, individuals have a strong incentive to
    a. ignore the wishes of others when making decisions about how to use their resources.
    b. provide services to others in exchange for income.
    c. avoid exchanges because in every exchange there will be one person who gains and another who loses.
    d. substitute promises for the consistent delivery of a quality product.

ANSWER: b

28. Economics is primarily the study of
    a. how to make money in the stock market.
    b. how to find lower cost methods of production.
    c. the choices we must make among alternatives because of scarcity.
    d. the proper form of industrial structure for the United States.

ANSWER: c

29. Which of the following is not scarce?
    a. time for leisure activities
    b. computers
    c. jeans
    d. the air we breathe

ANSWER: d

30. The economic way of thinking is
    a. a set of historical generalizations that indicates what goods should be produced.
    b. a body of statistical data that indicates how an economy should be organized.
    c. a set of basic concepts that helps one understand human choices.
    d. a set of complex, highly abstract theories that provides persons skilled in statistics with the information necessary to tell others what choices they should make.

ANSWER: c

31. Economic theory

a. is a set of definitions, postulates, and principles assembled in a manner that helps make cause-and-effect relationships clear in economics.
b. focuses primarily on the usage of capital within a society.
c. focuses primarily on the roles and responsibilities of government in a society.
d. is a set of definitions, postulates, and principles that help maximize opportunity costs of a society.

ANSWER: a

32. Which of the following is part of the economic way of thinking?
a. Opportunity costs will not be incurred when scarce resources are used to produce a good.
b. When the cost of an option increases, individuals will be less likely to choose it.
c. Changes in incentives generally have no effect on human behavior.
d. Economic thinking focuses primarily on the usage of labor within a society.

ANSWER: b

33. Which of the following is part of the economic way of thinking?
a. The accuracy of the assumptions is the best test of an economic theory.
b. When an option becomes more expensive, people will be less likely to choose it.
c. The value of a good can be determined objectively by measuring the amount of labor required for its production.
d. A body of statistical data that indicates how an economy should be organized.

ANSWER: b

34. The expression "There's no such thing as a free lunch" means
a. if one person gains, someone else must lose.
b. each person must pay for exactly what he or she receives.
c. the use of resources to produce a good has an opportunity cost because of scarcity.
d. you cannot have a free lunch at the expense of someone else.

ANSWER: c

35. "There is no such thing as a free lunch." This statement best reflects the fact that
a. consumers are unwilling to pay for a good unless it provides them with value.
b. an opportunity cost is always present when scarce resources are used to produce a good.
c. it generally requires enormous effort to search out the best place to eat lunch.
d. the value of a good to consumers will decrease as they have more of it.

ANSWER: b

36. Which of the following statements is correct about the economic way of thinking?
a. If the buyer of a good gains, the seller must lose an equal amount.
b. The value of goods is objective; it is equal to the cost of supplying the good.
c. Opportunity costs will always be incurred when scarce resources are used to produce a good.
d. Changes in incentives generally have no effect on human behavior.

ANSWER: c

37. Which of the following statements most accurately reflects the application of the scientific method to economics?

a. The use of modern electronic testing equipment to understand the world.
b. The unbiased development and testing of theories about how the world works.
c. The use of controlled laboratory experiments to understand the way the world works.
d. Finding evidence to support preconceived theories about how the world works.

ANSWER: b

38. Economists make assumptions in order to
a. mimic the methodologies employed by other scientists.
b. minimize the number of experiments that yield no useful data.
c. minimize the likelihood that some aspect of the problem at hand is being overlooked.
d. focus their thinking on the most important elements of the problem at hand.

ANSWER: d

39. Rational choice requires that opportunity cost be
a. considered for individual choices, but not for societal choices.
b. computed, but not actually used in making a decision.
c. used as the sole decision criterion.
d. considered as part of making a decision.

ANSWER: d

40. During a war, governments will sometimes draft people, most of whom are presently employed, into the army. An economist, computing the real cost of the war, would be sure to include which of the following items?
a. The value of the civilian goods no longer produced by the new soldiers.
b. The cost of feeding and clothing the new soldiers.
c. The dollar cost of the payroll.
d. The higher prices of civilian goods due to wartime shortages.

ANSWER: a

41. Ethan washes and irons his own shirts. Tiana, his boss, sends her clothes to a laundry. Which is the most plausible economic explanation for this difference?
a. Ethan must enjoy ironing more than Tiana does.
b. Ethan must be better at ironing than Tiana is.
c. The opportunity cost of ironing is greater for Ethan.
d. Tiana has a higher opportunity cost of laundering her clothes than Ethan does.

ANSWER: d

42. The opportunity cost of an action is
a. the monetary payment the action required.
b. the total time spent by all parties in carrying out the action.
c. the value of the best opportunity that must be sacrificed in order to take the action.
d. the cost of all alternative actions that could have been taken, added together.

ANSWER: c

43. The highest valued alternative that must be given up in order to choose an option is called

a. opportunity cost.
b. utility.
c. scarcity.
d. disutility.

ANSWER: a

44. A tradeoff exists between a clean environment and a higher level of income in that
a. studies show that individuals with higher levels of income actually pollute less than low-income individuals.
b. efforts to reduce pollution typically are not completely successful.
c. regulations that reduce pollution raise costs of production and reduce incomes.
d. by employing individuals to clean up pollution, employment and income both rise.

ANSWER: c

45. The opportunity cost of going to college is
a. the total spent on food, clothing, books, transportation, tuition, lodging, and other expenses.
b. the value of the best opportunity a student gives up to attend college.
c. zero for students who are fortunate enough to have all of their college expenses paid by someone else.
d. zero, since a college education will allow a student to earn a larger income after graduation.

ANSWER: b

46. For a college student who wishes to calculate the true costs of going to college, the costs of room and board
a. should be counted in full, regardless of the costs of eating and sleeping elsewhere.
b. should be counted only to the extent that they are more expensive at college than elsewhere.
c. usually exceed the opportunity cost of going to college.
d. plus the cost of tuition, equals the opportunity cost of going to college.

ANSWER: b

47. Which of the following is true?
a. Human choice is generally not influenced by changes in incentives.
b. What is true for the individual must be true for the group as a whole.
c. Using scarce resources to meet one need reduces our ability to meet needs in other areas.
d. The economic way of thinking stresses that good intentions usually lead to sound economic policy.

ANSWER: c

48. If the government provides free schooling for all students, an economist would say education is
a. a free good, having no cost.
b. scarce even though its cost is paid by taxpayers rather than by students.
c. an example of a good that is no longer scarce.
d. a result of the fallacy of composition.

ANSWER: b

49. "The resources now going into the War on Terrorism and into improved airport security would save more lives if they were invested in medical research." This statement most clearly reflects which of the following?
a. The best test of an economic theory is its ability to predict.

b. There is no such thing as a free lunch--the use of scarce resources always has an opportunity cost.
c. selfishness; if people were not selfish, we could have more of everything.
d. The value of goods can be determined objectively.

ANSWER: b

50. The benefit (or satisfaction) that an individual expects to derive from an activity is called
a. opportunity cost.
b. utility.
c. marginal cost.
d. scarcity.

ANSWER: b

51. In economics the term utility refers to
a. the subjective benefit or satisfaction a person expects to receive from a choice or course of action.
b. the number of possible uses for a resource.
c. the fact that human desire for goods is unlimited while the resources available to meet those desires is limited.
d. the highest valued alternative that must be sacrificed when a choice is made.

ANSWER: a

52. The economizing problem is essentially one of deciding how to make the best use of
a. limited resources to satisfy limited wants.
b. unlimited resources to satisfy limited wants.
c. limited resources to satisfy virtually unlimited wants.
d. unlimited resources to satisfy unlimited wants.

ANSWER: c

53. Deciding how to make the best use of limited resources to satisfy virtually unlimited wants is known in economics as
a. economizing behavior.
b. the fallacy of composition.
c. *ceteris paribus.*
d. the fallacy that good intentions do not guarantee the desired outcome.

ANSWER: a

54. When economists say an individual displays economizing behavior, they simply mean that she is
a. making a lot of money.
b. buying only those products that are cheap and of low quality.
c. learning how to run a business more effectively.
d. seeking the lowest cost method to accomplish her objectives.

ANSWER: d

55. Which of the following is most consistent with economizing behavior?
a. If you derive the same satisfaction from eating pizza and eating ice cream, it makes no difference which one of the two you choose.
b. Before voting, you should invest the time and energy to become fully informed on all of the issues and

candidates.

c. It never makes sense to hire someone to do something for you that you could do yourself.

d. If you get the same satisfaction from a chicken sandwich and a salad, you should purchase the one that costs the least.

ANSWER: d

56. Which of the following is most consistent with economizing behavior?

a. If you get the same satisfaction from a hamburger and a fish sandwich, you should purchase the one that costs the most.

b. Even if you know how to paint, hiring someone to do the job is consistent with economizing behavior, if your opportunity cost is high enough.

c. If the government provides a good free to citizens, the opportunity cost of the good is zero.

d. If you get the same satisfaction from going to the opera and going to an art museum, it makes no difference which you choose.

ANSWER: b

57. When economists say an individual has made a rational choice, they mean the individual has

a. made the choice by weighing their own subjective costs and benefits.

b. made a "good" decision, one that reasonable outside observers would have also made.

c. neglected to consider the unintended consequences arising from their decision.

d. ignored their own personal interests and made the choice that is best for society.

ANSWER: a

58. Malik enjoys the feeling of wind in his hair enough to ride his motorcycle without a helmet, even though he fully realizes the potential for injury it creates by not wearing one in the unlikely event he is in an accident. To an economist, Malik is

a. making an irrational choice.

b. making a rational choice.

c. not fully considering the personal costs and benefits of his decision.

d. not responding to the incentives he faces.

ANSWER: b

59. A rational decision maker takes an action if and only if

a. the marginal benefit of the action exceeds the marginal cost of the action.

b. the marginal cost of the action exceeds the marginal benefit of the action.

c. the marginal cost of the action is zero.

d. the opportunity cost of the action is zero.

ANSWER: a

60. When economists say that people choose rationally, this means

a. they gather all relevant information before making their purchases.

b. people rarely make errors when they are permitted to make transactions.

c. people respond in predictable ways to changes in costs and benefits.

d. once made, decisions are never reversed.

ANSWER: c

61. Which of the following is an example of a rational decision?
    a. DeShawn enjoys the feeling of wind in his hair enough to ride his motorcycle without a helmet because he does not fully realize the potential for injury it creates by not wearing one in the unlikely event he is in an accident.
    b. Jayla, a burglar who breaks into houses, decides to break into the house at 265 Elm Street, rather than the house next door because the house next door has a sign in the yard that says "Welcome."
    c. Nicolas, an essential oil user, chooses to buy his essential oils from Samuel, because Samuel's essential oils are as good as the essential oils from other dealers, but Samuel has lower prices.
    d. Ciara skips breakfast even though she believes that a nutritious meal could potentially increase her performance on the final exam.

ANSWER: c

62. When an individual weighs her options and makes a choice that maximizes her benefit at the minimum cost, economists refer to this as a process of
    a. rational decision making.
    b. objective decision making because the value of goods is determined objectively.
    c. marginal management analysis.
    d. random decision making.

ANSWER: a

63. Which of the following is often referred to as the basic postulate of economics?
    a. Individuals act only out of selfish motives.
    b. Incentives matter--individuals respond in predictable ways to changes in personal costs and benefits.
    c. The accuracy of the assumptions is the best test of an economic theory.
    d. The value of a good is objective; it is equal to the cost of producing the good.

ANSWER: b

64. The economic way of thinking stresses that
    a. greed is the primary motivation for human action.
    b. as the benefits of an option increase, people will be more likely to choose that option.
    c. an objective value can be attached to physical goods.
    d. as the cost of an option decreases, people will be less likely to choose that option.

ANSWER: b

65. The most fundamental concept in economics is that
    a. changes in incentives influence behavior in a predictable way--people will be less likely to choose an option as it becomes more expensive.
    b. changes in incentives generally do not influence human behavior.
    c. goods that are provided by government are free for society.
    d. individuals generally do not consider other alternatives when making a choice.

ANSWER: a

66. Which of the following is true?
    a. Changes in personal costs and benefits will exert a predictable impact on the choices of human decision

makers.

b. Only direct monetary costs matter in making decisions.

c. If a good is provided free to an individual, its production will not consume valuable scarce resources.

d. Secondary effects are seldom of importance in economics.

ANSWER: a

67. The economic way of thinking stresses that

a. changes in personal costs and benefits generally fail to exert much impact on behavior.

b. incentives matter--individuals respond in predictable ways to changes in personal costs and benefits.

c. if one individual gains from an economic activity, then someone else must lose and in the same proportion.

d. if a good is provided by the government, its production will not consume valuable scarce resources.

ANSWER: b

68. Which of the following is true?

a. Changes in personal costs and benefits will exert a predictable influence on the choices of people.

b. If one individual gains from an economic activity, then someone else must lose.

c. If a good is provided free to an individual by government, its production will not consume valuable scarce resources.

d. If the intentions behind a policy are good, you can be assured that the outcome will be desirable.

ANSWER: a

69. Which of the following is ***not*** consistent with the basic postulate of economics that incentives matter?

a. Farmers produce fewer bushels of wheat in response to an increase in the price of wheat.

b. A politician votes against a proposal because most of his constituents oppose it.

c. People drive less because of higher gas prices.

d. People buy more milk in response to a reduction in the price of milk.

ANSWER: a

70. The economic way of thinking suggests that if the government imposed a $500 tax on owners of red automobiles,

a. fewer red automobiles would be produced and sold.

b. more red automobiles would be produced and sold.

c. there would be no change in the number of red automobiles produced and sold.

d. red automobiles would cease to exist.

ANSWER: a

71. If a college enforces a new policy where anyone caught cheating is immediately expelled, the basic postulate of economics suggests that

a. cheating will be completely eliminated.

b. fewer students will attempt to cheat.

c. the amount of cheating will be unaffected.

d. any of the above is possible because student behavior is unpredictable.

ANSWER: b

72. Which of the following groups would most likely benefit from a law that is extremely tough on those who drink and

drive?

a. truck drivers
b. taxi drivers
c. bartenders
d. doctors and nurses

ANSWER: b

73. Which one of the following statements most accurately indicates the basic motivation for behavior?

a. Individuals are motivated primarily by selfish desires; thus, personal costs and benefits influence their actions.
b. Individuals are motivated primarily by humanitarian concerns; therefore, personal costs and benefits exert little influence on most of their actions.
c. Individuals are motivated by a variety of forces; however, changes in personal benefits and costs influence the choices of both selfish and humanitarian individuals.
d. Individuals are motivated by a variety of forces; however, changes in personal benefits and costs affect behavior only when individuals are motivated by selfishness.

ANSWER: c

74. Economic analysis assumes that

a. people act only out of selfish motives.
b. people are motivated by a variety of forces; however, changes in personal benefits and costs affect behavior only when individuals are motivated by selfishness.
c. people are basically unselfish, and their actions are, therefore, difficult to predict.
d. changes in the personal benefits and costs associated with an activity will exert a predictable influence on the behavior of both those who are selfish and those who are unselfish.

ANSWER: d

75. In economics, the term marginal refers to

a. the change or difference between two alternatives.
b. man-made resources as opposed to natural resources.
c. the satisfaction a consumer receives from a good.
d. holding everything else constant in the analysis.

ANSWER: a

76. When deciding whether to buy a second car, the economic way of thinking indicates that the purchaser should compare

a. the benefits expected from two cars with the cost of both.
b. the additional benefits expected from a second car with the cost of the two cars.
c. the dollar cost of the two cars with the potential income that the cars will generate.
d. the additional benefits of the second car with the additional cost of the second car.

ANSWER: d

77. A marginal change usually is a

a. change that involves little, if anything, that is important.
b. large, significant adjustment.
c. change for the worse, and so it is usually a short-term change.

d. small, incremental adjustment.

ANSWER: d

78. People are willing to pay more for a diamond than for a bottle of water because
   a. the marginal cost of producing an extra diamond far exceeds the marginal cost of producing an extra bottle of water.
   b. the marginal benefit of an extra diamond far exceeds the marginal benefit of an extra bottle of water.
   c. producers of diamonds have a much greater ability to manipulate diamond prices than producers of water have to manipulate water prices.
   d. water prices are held artificially low by governments, since water is necessary for life.

ANSWER: b

79. Your professor loves her work, teaching economics. She has been offered other positions in the corporate world that would increase her income by 25 percent, but she has decided to continue working as a professor. Her decision would not change unless
   a. the marginal cost of teaching increased.
   b. the marginal benefit of teaching increased.
   c. the marginal cost of teaching decreased.
   d. the marginal benefit of a corporate job decreased.

ANSWER: a

80. If a decision maker uses marginal analysis, then the relevant costs are the
   a. full costs of a particular activity or product.
   b. fixed costs which do not vary with the extra activity or output.
   c. average costs for a particular activity or product.
   d. additional costs of a particular activity or product.

ANSWER: d

81. Standby passengers on airlines who pay low rates for seats benefit from the low price. How are the airlines affected?
   a. They lose, because the standby passengers do not cover the full cost of the seats.
   b. They gain, because the additional revenue covers the "fixed costs" of the flight.
   c. They lose, because the gain of the passengers must necessarily come at the expense of the airline.
   d. They benefit as long as the additional revenue from the passengers exceeds the marginal cost.

ANSWER: d

82. If an airline company has several empty seats on a flight and the full price of an air ticket is $500 and the marginal cost per passenger is $100, then it will be profitable for the airline to
   a. fill the seats at the last minute for any price.
   b. charge a stand-by passenger less than $100.
   c. charge a stand-by passenger more than $500.
   d. charge a stand-by passenger more than $100.

ANSWER: d

83. To say that people make marginal decisions means that
   a. they usually wait until the last minute before making a decision to buy

b. they weigh the additional costs and additional benefits of various activities before they make a decision

c. most people just barely get by on the incomes they earn and live from day to day on the very edge of subsistence

d. they consider the total cost and benefit of various activities before they make a purchase

ANSWER: b

84. Andre, a wheat farmer, is deciding whether or not to add fertilizer to his crops. If he adds 1 pound of fertilizer per acre, the value of the resulting crops rises from $80 to $100 per acre. According to marginal analysis, Andre should add fertilizer if it costs less than

a. $12.50 per pound.

b. $20 per pound.

c. $80 per pound.

d. $100 per pound.

ANSWER: b

85. According to marginal analysis, you should spend more time studying economics if the extra benefit from an additional hour of study

a. is positive.

b. outweighs the extra cost.

c. exceeds the benefits of the previous hour of study.

d. will raise your exam score.

ANSWER: b

86. While waiting in line to buy two tacos at $2 each and a medium drink for $2.50, Kayla notices that the restaurant has a value meal containing three tacos and a medium drink all for $7. For Kayla, the marginal cost of the third taco would be

a. zero.

b. $0.50.

c. $1.00.

d. $2.00.

ANSWER: b

87. While waiting in line to buy one cheeseburger for $2.50 and a medium drink for $2.00, Sally notices that she could get a value meal that contains both the cheeseburger and medium drink and also a medium order of fries for $5. She thinks to herself, "Is it worth the extra 50 cents to get the medium fries?" To an economist, Sally's decision is an example of

a. marginal decision making.

b. basing decisions on total, rather than marginal, value.

c. an unintended consequence.

d. the fallacy of composition.

ANSWER: a

88. Isabella wishes to buy gasoline and have her car washed. She finds that if she buys 9 gallons of gasoline at $2.50 per gallon, the car wash costs $2, but if she buys 10 gallons of gasoline, the car wash is free. For Isabella, the marginal cost of the tenth gallon of gasoline is

a. zero.

b. $0.50

c. $2.00.

d. $2.50.

ANSWER: b

89. Santiago wants to buy some milk and a box of cereal. If he buys 2 quarts of milk at $1.50 per quart, the box of cereal costs $1. If he buys 3 quarts of milk at $1.50 per quart, the box of cereal is free. For Santiago, the marginal cost of the third quart of milk is

a. zero.

b. $0.50

c. $2.00

d. $3.00

ANSWER: b

90. A firm producing cans buys three tons of aluminum per day at $200 per ton. If it buys four tons per day, it receives a quantity discount on all units and pays only $175 per ton. The marginal cost of the fourth ton per day is

a. $100.

b. $175.

c. $700.

d. $225.

ANSWER: a

91. A local restaurant offers an "all you can eat" buffet for $15. Mia eats four servings but leaves half of a fifth helping uneaten. Why?

a. Her marginal value of a serving of brunch has fallen below $15.

b. Her marginal value of a serving has fallen below $3 ($15 divided by 5 servings).

c. Her marginal value of food has fallen to zero.

d. The total value she places on the buffet exactly equals $15.

ANSWER: c

92. A restaurant offers an "all you can eat" meal for $12. Tyrone has eaten three servings and is trying to decide whether or not to go back for a fourth. The economic way of thinking suggests that Tyrone should go back for the fourth serving if and only if

a. his marginal benefit of the additional serving is greater than zero.

b. his marginal benefit of the additional serving is at least $4.

c. his marginal benefit of the additional serving is $12 or more.

d. his total value from the meal exceeds $12.

ANSWER: a

93. Because information is costly to acquire,

a. people will rationally choose not to become fully informed when making decisions.

b. people will generally choose to become as fully informed as possible when making decisions.

c. people will generally choose to acquire no information that would be relevant to their decisions.

d. people will generally pay a lot of money to become fully informed when making decisions.

ANSWER: a

Ch 01: MC

94. People are more likely to spend time reading online reviews of new automobiles before buying a new car than they are to spend time reading reviews of pens and pencils before buying a new pen or pencil. Which of the following best explains this behavior?
    a. Because there are no consumer reviews of pens and pencils.
    b. Because the value of the information, in terms of avoiding a mistake on the purchase, is much higher for an automobile than for a pen or pencil, it is more worthwhile to gather this information.
    c. Because people generally do not know which products are reviewed and where to find consumer reviews.
    d. Because the value of the information, in terms of avoiding a mistake on the purchase, is much lower for an automobile than for a pen or pencil, it is more worthwhile to gather this information.

ANSWER: b

95. Which of the following is consistent with the implications of the economic guidepost that information is costly to acquire?
    a. Most people do not know the names of their legislators in the U.S. Congress, but those same individuals are likely to know the names of all the cast members on a popular TV show.
    b. In considering purchases, people are less likely to spend time reading reviews of new automobiles before buying a car, but are more likely to read reviews of pens and pencils before buying a pen or pencil.
    c. When shopping for something like a new calculator, people will generally spend a lot of time to do price comparisons at all of the stores in town that sell calculators.
    d. When considering the market for coffee, people are less likely to purchase coffee if the cost for advertising is high and more likely to purchase coffee if the cost of advertising is low.

ANSWER: a

96. Economic analysis is based on the premise that
    a. people act only out of selfish motives.
    b. people are always fully informed when making choices.
    c. changes in the personal benefits or costs of an action influence behavior in a predictable way.
    d. most human behavior is unpredictable.

ANSWER: c

97. In economics, secondary effects refer to the
    a. best alternative that must be forgone as the result of a choice.
    b. unintended consequences of a change that are not immediately identifiable but are felt only with time.
    c. immediate and visible intended consequences of a change.
    d. impact of the scarcity of resources on the scarcity of the goods that are produced with those resources.

ANSWER: b

98. The unintended consequences of an economic change that are not immediately identifiable but are felt only with time are known in economics as
    a. opportunity costs.
    b. marginal effects.
    c. secondary effects.
    d. scarcity constraints.

ANSWER: c

99. Which of the following would NOT be considered a secondary effect caused by making drugs such as cocaine illegal?
   a. The higher prices that result from making them illegal results in more property theft by users to afford the drugs.
   b. The usage of police and law enforcement resources to enforce drug laws leads to lower enforcement (and thus a higher amount) of other crimes.
   c. Without the ability to use the legal system to enforce contracts, violence often results when one party to a drug deal does not live up to their end of the bargain, thus the amount of violence increases by making drugs illegal.
   d. Drug prohibition often leads to an increase in the minimum wage and a decrease in inflation.

ANSWER: d

100. "Mediocre economists often consider only the immediate apparent effects of a change, whereas a good economist will also consider effects that may only become observable over time." This statement most clearly emphasizes
   a. the fallacy of composition.
   b. economizing behavior.
   c. the importance of secondary effects.
   d. the fact that association is not causation.

ANSWER: c

101. The value of a good
   a. depends on many factors, including who uses it and under what circumstances.
   b. is determined by the cost of producing it.
   c. depends on the labor necessary to supply the good.
   d. can be measured objectively by a survey of manufacturers of the good.

ANSWER: a

102. What is the best test of an economic theory?
   a. The accuracy of the assumptions behind the theory.
   b. The ability of the theory to predict real-world events.
   c. The implications of the theory for current public policy.
   d. How much mathematical detail is behind the theory.

ANSWER: b

103. What is the best test of an economic theory?
   a. Its eloquence.
   b. The plausibility of its assumptions.
   c. Its ability to predict real-world events, patterns, and changes.
   d. Whether it produces implications that are favored by the researcher.

ANSWER: c

104. The expression "There's no such thing as a free lunch" means
   a. in an exchange, if one person gains, someone else must lose.
   b. each person must pay for exactly what he or she receives.
   c. the use of resources to meet one need means that those resources can no longer be used to meet another need.
   d. in an exchange, if one person gains, someone else must lose and equal amount.

ANSWER: c

105. The highest valued alternative option that must be given up in order to choose an action is called its
   a. utility.
   b. opportunity cost.
   c. capital.
   d. *ceteris paribus.*

ANSWER: b

106. The economic way of thinking stresses that
   a. changes in personal costs and benefits generally do not influence human behavior.
   b. incentives matter--when an option becomes less costly, people will be more likely to choose it.
   c. if one individual gains from an economic activity, then someone else must lose.
   d. goods provided by government do not consume valuable scarce resources since government activity is not part of the market economy.

ANSWER: b

107. The consequences of an economic change that are not immediately identifiable but are felt only with the passage of time are known in economics as
   a. opportunity costs.
   b. utility curves.
   c. secondary effects.
   d. comparative advantages.

ANSWER: c

108. Liam wants to buy some milk and a box of cereal. If Liam buys 4 gallons of milk at $4.00 per gallon, the box of cereal costs $3.00. If he buys 5 gallons of milk, the box of cereal is free. For Liam, the marginal cost of buying a fifth gallon of milk is
   a. zero.
   b. $1.00.
   c. $3.00.
   d. $4.00.

ANSWER: b

109. The difference between a positive economic statement and a normative statement is that
   a. a positive statement must be true; a normative statement is often not true
   b. a normative statement must be true; a positive statement is often not true
   c. a positive statement can be proved; a normative statement cannot
   d. a normative statement can be proved; a positive statement cannot

ANSWER: c

110. The difference between positive economic statements and normative economic statements is that
   a. positive statements are based on opinion while normative statements are based on fact
   b. positive statements are true and normative statements are often false
   c. positive statements are often false and normative statements are true

d. positive statements are based on fact while normative statements are based on opinion

ANSWER: d

111. Which of the following is a positive economic statement?

a. Too much government spending is the biggest problem facing the U.S. economy.

b. Creating jobs is the most serious problem facing the U.S. economy.

c. Raising taxes provides additional revenue that should be used to finance health care.

d. If taxes are over 50 percent of national income, job creation falls.

ANSWER: d

112. Which of the following is a positive economic statement?

a. Government control of rent is a fair way to help poor people afford housing.

b. Government control of rent keeps landlords from charging too much rent.

c. Government control of rent decreases the number of new apartments constructed.

d. Government control of rent is an injustice.

ANSWER: c

113. The Secretary of Labor states that wage rates in the country have risen by 2 percent this past year. The head of a local labor union states that wage gains should have been higher. The Secretary's statement is a(n) ____ economic statement, and the labor head's statement is a(n) ____ economic statement.

a. normative; normative

b. normative; positive

c. positive; normative

d. positive; positive

ANSWER: c

114. Which of the following is an example of a normative economic statement?

a. The inflation rate in the United States decreased from 4 percent last year to 3 percent this year as a result of lower energy prices.

b. The economy grew at an annual rate of 5 percent during the first quarter of this year.

c. If two automobile companies merge, it is likely that the price of automobiles will rise.

d. The minimum wage should be increased so that low income workers can afford to keep up with the cost of living.

ANSWER: d

115. Which of the following most clearly distinguishes between positive and normative economics?

a. Positive economics is the study of what ought to be; normative economics is concerned with the facts.

b. Positive economics is the study of the facts; normative economics is concerned with what ought to be.

c. Positive economics is the study of supply and demand in narrowly defined markets such as the market for shoes; normative economics focuses on highly aggregated markets such as the market for all consumer products.

d. Positive economics is the study of goods that are scarce; normative economics is concerned with goods that are not scarce.

ANSWER: b

Ch 01: MC

116. Positive economics

a. postulates relationships among economic variables that are potentially refutable by real-world events.

b. is strictly quantitative and is, therefore, of little value to policy makers.

c. will usually indicate which economic policy is best.

d. is the same as normative economics.

ANSWER: a

117. Which of the following is true?

a. Positive economics deals with how people react to changes in benefits, and normative economics deals with how people react to changes in costs.

b. Positive economic statements are testable, but normative statements are not.

c. Positive economic statements involve value judgments while normative economics focuses on whether a policy will achieve its intended objectives.

d. Positive economic statements focus on policy issues while normative economics focuses on economic theory.

ANSWER: b

118. Which of the following is a positive economic statement?

a. Raising the federal minimum wage to $8.50 per hour will cause the rate of unemployment to increase.

b. The United States spends too much on welfare.

c. Philosophy is not as interesting as economics.

d. Cold weather is much more enjoyable than warm weather.

ANSWER: a

119. Which of the following is a normative economic statement?

a. Congress should increase the legal minimum wage.

b. An increase in the legal minimum wage would cause unemployment to increase.

c. An increase in the legal minimum wage would cause unemployment to decrease.

d. An increase in the legal minimum wage would lead to more equality in the distribution of income.

ANSWER: a

120. Which of the following is a normative economic statement?

a. If we doubled the size of welfare payments, we would reduce the number of homeless persons.

b. Companies should be concerned with more than just their profits.

c. An increase in spending on airport security will reduce the number of hijackings.

d. If social security were to be privatized, workers would earn a higher rate of return on their retirement contributions.

ANSWER: b

121. "The standard of living is too low for many individuals in the United States. The government should implement policies designed to achieve a more equal distribution of income." The preceding statements are

a. positive economic statements based on cause and effect.

b. normative economic statements based on value judgments.

c. based on the fallacy of composition argument.

d. an empirically validated economic principle.

ANSWER: b

122. Positive economics
   a. postulates a relationship that is potentially refutable and then seeks to determine whether the stated relationship is correct.
   b. uses value judgments to determine which policy alternatives should be chosen.
   c. is of no use to policy makers because it reflects the value judgments of the researcher.
   d. is the scientific study of "what ought to be" among economic relationships.

ANSWER: a

123. Which of the following is a positive economic statement?
   a. reducing unemployment should be the highest priority of the federal government.
   b. a reduction in the payroll tax will reduce the unemployment rate.
   c. corporations should be prohibited from laying off workers during a recession.
   d. the current unemployment rate is too high.

ANSWER: b

124. The statement, "Kerem buys more of good X as his income increases, ceteris paribus," means
   a. the price of this good is being allowed to change.
   b. Kerem's purchases of good X are being held constant.
   c. Kerem's income and purchases of this good are being held constant.
   d. Kerem's income is the only influence that is being allowed to change.

ANSWER: d

125. When economists use the term *ceteris paribus*, they are indicating that
   a. the relationship between two economic variables cannot be determined.
   b. the analysis is true for the individual but not for the economy as a whole.
   c. all other variables except the ones specified are assumed to be constant.
   d. their conclusions are based on normative economics rather than positive economic analysis.

ANSWER: c

126. The term *ceteris paribus* means that
   a. everything is changing.
   b. all variables except those specified are constant.
   c. no one knows which variables will change and which will remain constant.
   d. the basic postulate of economics does not apply for the case being considered.

ANSWER: b

127. Economists use the term *ceteris paribus* to indicate that
   a. supply and demand are in balance.
   b. other things are assumed to be constant.
   c. the analysis is true for the individual but not for the economy as a whole.
   d. their conclusions are based on normative economics rather than positive economic analysis.

ANSWER: b

Ch 01: MC

128. Which one of the following statements is correct?
   a. Policymakers have good intentions and therefore their proposals will create good outcomes.
   b. Potential secondary effects do not need to be considered when deciding whether to implement a new government program.
   c. A good outcome is guaranteed from a government program if it is created with good intentions.
   d. Government programs can be implemented with good intentions but can lead to undesirable outcomes because of unintended consequences.

ANSWER: d

129. Senator DuMonde favors a government program that he believes will help save endangered species. Economic analysis indicates that
   a. because Senator DuMonde has good intentions, his new program will have the desired results.
   b. Senator DuMonde's new program could have unintended consequences that might result in an outcome different from what was intended.
   c. regardless of any secondary effects, costs should not be considered when designing environmental legislation.
   d. because Senator DuMonde's proposal is a government program, it will not have an opportunity cost.

ANSWER: b

130. Legislation to protect red-cockaded woodpeckers created incentives that resulted in premature harvesting of trees the woodpeckers like to nest in. This is an example of which of the following?
   a. Association is not causation.
   b. The fallacy of composition.
   c. The use of *ceteris paribus* conditions in economic analysis.
   d. Good intentions do not always lead to desirable outcomes.

ANSWER: d

131. Your friend notices that U.S. auto production and U.S. population growth have moved together over several decades. He reasons that one way to slow population growth is for the government to order the auto makers to cut back on production. You gently point out to him that he
   a. is correct only when the economy is in a recession
   b. has mistakenly inferred causation from observed correlation
   c. has ignored secondary effects
   d. has committed the fallacy of composition

ANSWER: b

132. A student noted that the football team won by a larger margin when the third-string played more minutes. Therefore, he recommended that the third-stringers become the first team. His conclusion was probably erroneous because he
   a. confused positive and normative analysis.
   b. committed the fallacy of composition.
   c. failed to recognize that association is not causation.
   d. confused macroeconomics with microeconomics.

ANSWER: c

133. "After every fall election, the weather starts to turn cold, therefore elections cause cold weather." This statement

a. confuses positive and normative analysis.

b. commits the fallacy of composition.

c. fails to recognize that association is not causation.

d. confuses macroeconomics with microeconomics.

ANSWER: c

134. Someone notices that sunspot activity is high just prior to recessions and concludes that sunspots cause recessions. This person has

a. confused association and causation.

b. misunderstood the ceteris paribus assumption.

c. used normative economics to answer a positive question.

d. built an untestable model.

ANSWER: a

135. The fallacy of composition is the fallacious view that

a. economic activity will benefit everyone.

b. what is true for the individual will also be true for the group.

c. it is possible for the whole to be greater than the sum of the individual parts.

d. association does not necessarily indicate causation.

ANSWER: b

136. The fallacy of composition is the incorrect view that

a. everything else is always held constant when a change occurs.

b. a small change in an economic variable will have unrecognizable but significant consequences on the economy.

c. when two events are associated, the one observed first must have caused the second.

d. if something is true for an individual, then it must also be true for the group.

ANSWER: d

137. Which of the following best illustrates the fallacy of composition?

a. If Tao had more money, he could afford to buy more goods.

b. If Sydney stood up at a basketball game, she could get a better view of the game; if everyone stood up at a basketball game, everyone could have a better view of the game.

c. If the price of bread rose, consumers would buy less; if consumers bought less bread, the price of bread would rise.

d. High housing prices cause people to buy less housing, but an increase in income might cause them to buy more housing.

ANSWER: b

138. "If Luis had twice as much money, he could consume twice as much. If everyone had twice as much money, they could consume twice as much." This quote illustrates

a. the difference between positive and normative economics.

b. the fallacy of composition.

c. that association is not causation.

d. the law of unintended consequences.

ANSWER: b

139. The fallacy of composition is the incorrect view that
   a. decisions are always made at the margin.
   b. incentives matter only to those who behave selfishly.
   c. if something is true for an individual, then it must also be true for the group.
   d. the value of a good can be objectively measured by its cost of production.

ANSWER: c

140. The basic difference between macroeconomics and microeconomics is that
   a. microeconomics is concerned with aggregate markets and the entire economy, while macroeconomics is concerned with specific individual markets.
   b. macroeconomics is concerned with policy decisions, while microeconomics applies only to theory.
   c. microeconomics is concerned with individual markets and the behavior of people and firms, while macroeconomics is concerned with aggregate markets and the entire economy.
   d. macroeconomics is concerned with positive economics, while microeconomics is concerned with normative economics.

ANSWER: c

141. When the Hometown football team is winning by a lot of points after halftime, they often play their second and third team players. One of the coaches notices that when the third team plays that Hometown wins by a bigger margin than when just the first team plays. He recommends that the third team see more playing time as a result. What is wrong with his way of thinking?
   a. association is not causation
   b. it is a violation of ceteris paribus
   c. the fallacy of composition
   d. good intentions do not guarantee desirable outcomes

ANSWER: a

142. The Latin phrase "ceteris paribus" means
   a. that one event causes another.
   b. that one event is associated with, but not caused by, another.
   c. that other potential causes are assumed to remain constant.
   d. the way things should be.

ANSWER: c

143. If you win the lottery this would be great for you, but if everyone simultaneously won the lottery this wouldn't be nearly as good, why?
   a. association is not causation
   b. it is a violation of ceteris paribus
   c. the fallacy of composition
   d. what appear to be positive outcomes in society are actually normative.

ANSWER: c

Name:________________________ Class:________________ Date:________

Ch 01: Essay

1. If economics is correct in its assumption that people are rational, why then would anyone choose to smoke cigarettes?

ANSWER: Even though the harmful effects of cigarette smoking are documented, more than 20 percent of the U.S. adult population continues to smoke. The economic model of rational choice suggests that individuals weigh the marginal benefit of smoking an additional cigarette (the pleasure obtained) against the marginal costs (the pecuniary cost, the price of the cigarette, and the risk of being afflicted by smoking-related diseases, discounted by the probability). Since the likelihood of getting a smoking-related disease increases with age, it is not surprising that more people elect to give up the habit as they get older.

2. A radio station gives "free money" to those listeners whose names are drawn and announced over the airwaves from postcards the listeners sent into the radio station. Is the money really free for the listener?

ANSWER: While most students can identify the monetary cost of the postcard and stamp, we also must consider the opportunity cost of listening to the radio. It is true that we can do other activities while the radio is on and listen attentively when a name is drawn and announced over the airwaves. But there's also the opportunity cost of not being able to listen to another station, one that might offer more preferred programming.

3. Why would a radio station give money to listeners? Does this violate the economic way of thinking?

ANSWER: Radio stations do surveys to see what types of prizes listeners want (for example, cars, boats, vacations, etc.). Overwhelmingly, people say they want cash. A radio station that gives away money attracts listeners, and the more listeners a station has, the more it can charge advertisers. The owners of the radio station clearly believe the revenue this activity generates, in terms of advertising dollars, exceeds the money given away.

4. William observes that a car in 1925 sold for an average of $500 versus $20,000 for a 2005 model. He concludes that 2005 cars must be 40 times better than 1925 cars. What's wrong with this way of thinking?

ANSWER: Poor William has made several errors. First, a 1925 car differs substantially from a 2005 car. As the saying goes, he is comparing apples and oranges. Second, the value of the dollar has declined; William, therefore, is using as his measure a unit that has changed sizes. This is like measuring one room with a 50-inch stick and another room with a 20-inch stick. We can give both measures in terms of sticks, but they are not very comparable.

5. Evaluate this statement: "People engaged in economizing behavior will always buy the lowest priced item they can find."

ANSWER: As long as price is the only factor, we would expect people to buy the lowest priced product. However, once we consider quality, ease of operation, performance, durability, looks, etc., we can see why people would not necessarily buy the lowest priced item. While people generally seek products that yield the most benefits relative to costs, a product that can provide additional benefits would lead to a willingness to pay a higher price.

6. Homeowners can deduct interest payments on their mortgages from their federal income tax. If this deduction were removed, how would the housing market be affected?

ANSWER: The deductibility of these interest payments is an attractive feature of home ownership. If this deduction were removed, we would expect fewer people choosing to own their own homes. Additionally, we would expect to see more families in rental housing.

7. If people are self-interested, why does anyone give money to public radio?

ANSWER: Since people can listen to public radio without having to contribute, we know this can create a funding problem. However, since the economic concept of enlightened self-interest is broader than a narrow, selfish view, we would see people making this choice as contributing to their own interests. These people consider public radio good for their community. They value their community's well-being and, therefore, support public radio.

Ch 01: Essay

8. When Mother Theresa won the Nobel Peace Prize, the monetary award was well in excess of $100,000. Did she accept the money? If so, what did she do with it?

ANSWER: Mother Theresa used the money to help the poor, whom she spent a lifetime assisting. While we consider Mother Theresa to have been one of the most unselfish of people, it is clear that she could have gained more of what she valued if she had more money.

9. Who is more likely to drive carelessly, Camila in her 1980 Ford with bad brakes or Samantha, who has a 2005 BMW with all the most recent safety options?

ANSWER: On the surface, we might conclude that Samantha will be more careful since she appears to have more to lose (a higher priced car), but insurance likely will cover any monetary loss. Most people value their life and health more than material possessions; because of this, we expect Camila to be more careful due to her unsafe car. Samantha can afford to take more risks since her car is in better condition and has the latest safety features.

10. A popular video program, used to teach primary school children about economics, defines scarcity as "when you don't have enough of something." Evaluate this definition based on your understanding of the scarcity concept.

ANSWER: This definition is a bit simplistic for college understanding. The video uses the example of three hats and four children to assert a scarcity of hats. We would more properly view this as a shortage of hats created because the hats, as presented, have no price. The shortage can be eliminated but scarcity cannot. Scarcity is the fundamental concept from which economics derives. Besides resources, virtually all other things, including your time, are scarce. Your textbook's definition will serve you better than the one from the video.

Name:________________________________ Class:____________________ Date:__________

Ch 01: Suggested Quiz

1. What do economists mean when they state that a good is scarce?
    a. There is a shortage or insufficient supply of the good at the existing price.
    b. It is impossible to expand the availability of the good beyond the current amount.
    c. People will want to buy more of the good regardless of the price of the good.
    d. The amount of the good that people would like exceeds the supply freely available from nature.

ANSWER: d

2. Economic choice and competitive behavior are the result of
    a. basic human greed.
    b. poverty.
    c. private ownership of resources.
    d. scarcity.

ANSWER: d

3. Economic analysis assumes that
    a. individuals act only out of selfish motives.
    b. although individuals are at times selfish and at times unselfish, only their selfish actions may be predicted.
    c. people are basically humanitarian, and their actions are, therefore, impossible to predict.
    d. changes in the personal benefits and costs associated with a choice will exert a predictable influence on human behavior.

ANSWER: d

4. Jacob and Mason go to a diner that sells burritos for $5 and tacos for $3. They agree to split the lunch bill evenly. Mason chooses a taco. The marginal cost to Jacob of ordering a burrito instead of a taco is
    a. $1.
    b. $2.
    c. $2.50.
    d. $3.

ANSWER: a

5. The expression, "There's no such thing as a free lunch," implies that
    a. everyone has to pay for his own lunch.
    b. the person consuming a good must always pay for it.
    c. opportunity costs are incurred when resources are used to produce goods and services.
    d. no one has time for a good lunch anymore.

ANSWER: c

6. Which one of the following states a central element of the economic way of thinking?
    a. Scarce goods are priceless.
    b. Incentives matter--human choice is influenced in predictable ways by changes in personal costs and benefits.
    c. The realism of the assumptions is the best test of an economic theory.
    d. When deciding how to allocate time, the concept of opportunity cost is meaningless.

ANSWER: b

7. Which of the following is most clearly consistent with the basic postulate of economics regarding the reaction of people to a change in incentives.
   a. Farmers produce fewer bushels of wheat in response to an increase in the price of wheat.
   b. People will buy more milk at a price of $2 per gallon than at $1 per gallon.
   c. People will buy less gas if the price of gas increases by $.20 per gallon.
   d. People will consume more beef if the price increases from $1 to $2 per pound.

ANSWER: c

8. While waiting in line to buy two tacos at 75 cents each, and a medium drink for 80 cents, Emma notices that the restaurant has a value meal containing three tacos and a medium drink all for $2.50. For Emma, the marginal cost of purchasing the third taco would be
   a. zero.
   b. 20 cents.
   c. 75 cents.
   d. 80 cents.

ANSWER: b

9. Which one of the following is a positive economic statement?
   a. An increase in the minimum wage will reduce employment.
   b. The minimum wage should be increased.
   c. Social justice will be served by increasing the minimum wage.
   d. Thoughtful people oppose an increase in the minimum wage.

ANSWER: a

10. The basic difference between macroeconomics and microeconomics is that
   a. macroeconomics is concerned with the forest (aggregate markets), while microeconomics is concerned with the individual trees (subcomponents).
   b. macroeconomics is concerned with policy decisions, while microeconomics applies only to theory.
   c. microeconomics is concerned with the forest (aggregate markets), while macroeconomics is concerned with the trees (subcomponents).
   d. opportunity cost is applicable to macroeconomics, and the fallacy of composition relates to microeconomics.

ANSWER: a

Chapter 1
The Economic Approach

OUTLINE

I. What Is Economics About?

A. Scarcity means having to make choices.
   1. Scarcity and choice are the two essential ingredients of an economic topic.
   2. Scarcity is present whenever there is less of a good or resource freely available than people would like.
      a. Scarce goods are called economic goods.
      b. Resources are the inputs that people use to produce goods and services and may include human, physical, and natural resources.
   3. Scarcity forces us to choose among available alternatives.

B. Scarcity and poverty are not the same.
   1. Scarcity is a factual concept in which limited resources cause our desires for goods and services to be lacking.
   2. Poverty is more subjective in nature; different people have different ideas of what it means to be "poor."
   3. We may someday eliminate poverty, but scarcity will always be with us.

C. Scarcity necessitates rationing.
   1. Every society must have a method to ration the scarce resources among competing uses.
      a. Various factors can be used to ration (first-come, first-served).
      b. In a market setting, price is used to ration goods and resources.
      c. When price is used, the good or resource is allocated to those willing to give up "other things" in order to obtain ownership rights.

D. The method of rationing influences the nature of competition.
   1. Competition is a natural outgrowth of the need to ration scarce goods.
   2. Changing the rationing method used will change the form of competition, but it will not eliminate competitive tactics.

II. The Economic Way of Thinking

A. Eight guideposts to economic thinking
   1. The use of scarce resources is costly, so decision-makers must make trade-offs.
      a. Someone must give up something if we are to have more scarce goods.
         (1) The highest-valued alternative that must be sacrificed is the opportunity cost of the choice.
   2. Individuals choose purposefully—they try to get the most from their limited resources.
      a. Economizing: gaining a specific benefit at the least possible cost.

3. Incentives matter—changes in incentives influence human choices in a predictable way. Both monetary and nonmonetary incentives matter.
    a. As personal benefits (costs) from choosing an option increase, other things constant, a person will be more (less) likely to choose that option.
4. Individuals make decisions at the margin.
    a. Decisions will be based on marginal costs and marginal benefits (utility).
5. Although information can help us make better choices, its acquisition is costly..
6. Beware of the secondary effects: Economic actions often generate indirect as well as direct effects.
7. The value of a good or service is subjective.
8. The test of a theory is its ability to predict.

III. Positive and Normative Economics

A. Positive economics is the scientific study of "what is" among economic relationships.
    1. Positive economic statements can be proved either true or false.
        a. Ex: The inflation rate rises when the money supply is increased.

B. Normative economics are judgments about "what ought to be" in economic matters.
    1. Normative statements cannot be proved true or false.
        a. Ex: The inflation rate should be lower.

IV. Pitfalls to Avoid in Economic Thinking

A. Violation of the *ceteris paribus* condition can lead one to draw the wrong conclusion.
    1. *Ceteris paribus* is a Latin term meaning "other things constant."
    2. Used when the effect of one change is being described, recognizing that if other things changed, they also could affect the result.

B. Good intentions do not guarantee desirable outcomes.
    1. Policies formed with good intentions may have unintended adverse secondary effects.

C. Association is not causation.
    1. Statistical association alone cannot establish causation.

D. The fallacy of composition: What's true for one might not be true for all.
    1. The fallacy of composition is the erroneous view that what is true for the individual (or the part) will also be true for the group (or the whole).
    2. Microeconomics focuses on narrowly defined units, while macroeconomics focuses on highly aggregated units.
        a. One must beware of the fallacy of composition when shifting from micro to macro units.

FOCUS QUESTIONS

As you read this chapter, look for answers to the following questions:

- What is scarcity? Why does scarcity necessitate rationing and cause competition?
- What is the economic way of thinking? What is the basic postulate of economics, and why is it so important?
- What is the difference between positive and normative economics?

CONTEXT

The purpose of this chapter is to introduce the student to the economic way of thinking. Unless students understand the concept of scarcity, the importance of personal incentives, and subject their thinking to the scientific method, they will do poorly in economics.

Generally, teachers overestimate their students. While many of your students will easily grasp the basics of the economic way of thinking, others will need additional examples and illustrations before they understand the essentials. The concepts of scarcity, economizing behavior, and incentives are so important, they are worth an entire lecture. Use several illustrations to highlight the impact on human behavior of changes in personal benefits or costs.

Introductory students tend to associate economics with business decision making. We must illustrate to them that the basic principles of economics and personal incentives influence all of human decision making, including choices in the political and social spheres. You may also want to contrast the methodology of economics with that of other social sciences and the physical sciences. Discuss both the similarities and differences.

IMPORTANT POINTS AND TEACHING SUGGESTIONS

1. Be sure to distinguish clearly between scarcity and poverty (and shortages, once supply and demand have been covered). Anything that we would like to have more of at no cost is scarce. Thus, almost everything from clean air to leisure time to the ingenuity necessary to make other resources useful is scarce. Poverty is defined as failure to attain some minimum level of income. Poverty can conceivably be eliminated, whereas scarcity persists since goods are scarce for both the rich and the poor. A shortage is present when purchasers would like to buy more than is available *at the current price.*

2. Introducing the subject of incentives, one can readily emphasize the importance and generality of this basic principle of economics. When an activity is made more costly, people will be less likely to choose it. Similarly, when the benefits derived from an event increase, people will be more likely to undertake it. Numerous examples can illustrate this concept. How does hot weather influence one's decision to do without air-conditioning (or a swimming pool)? How does rewarding class attendance with higher grades influence one's decision to go to class? How does the grading policy of the instructor influence a student's incentive to study?

3. Discuss the meaning of "the margin" with students. Use non-economic examples to help clarify the idea. For example, ask students how an additional outstanding running back will influence the quality of a football team. (This is a marginal change.) If the running back position was previously a team weakness, the new player may make a substantial difference. On the other hand, if the team was already strong at this position, the new player may exert little influence on the overall performance of the team. Indicate clearly the difference between (a) the overall performance of the team (a total concept) and (b) the change that results from the addition of the new player (a marginal concept).

4. A good way of illustrating the search for information is to ask students how long they would search for a $50 bill. If your time had an opportunity cost of $10, you would look as long as you thought the probability of finding the bill in the next hour was at least 1/5. (The answer is not five hours in this case, because time already spent searching is then a sunk cost. A person could look well more or less than five hours.)

5. Give examples of actions that have secondary effects. What are the secondary effects of overeating? Lack of adequate sleep? Restricting trade with Japan? Fixing the price of wheat at $6 per bushel?

6. Emphasize both the theory and empirical parts of economics. Many professional economists are engaged in the continual testing of various aspects of economic theory. Discuss how economic theory is tested. Indicate real-world events that have convinced economists to modify their theories. Two examples of the latter are:

   a. the impact of the Great Depression on the theory that wage and price flexibility quickly restores full employment.

   b. the economic events of the 1970s on the theory that moderate inflation enables us to permanently attain low levels of unemployment.

7. Discuss the distinctions between positive and normative economics. Point out that positive economic statements are testable, whereas normative statements are not. Give several illustrations of both positive and normative economic statements. The following are examples of positive economic statements:

   a. "If the price of wheat rose, buyers would purchase less of it."

   b. "Nations that import substantial amounts of crude oil will experience inflation when crude oil prices rise." (Although this may or may not be true, it is nonetheless a positive statement.)

   c. "An increase in government borrowing will cause interest rates to rise."

   The following are examples of normative statements:

   a. "The price of wheat is too high."

   b. "The United States should impose price controls on domestic oil producers if the price of foreign oil rises."

   c. "It is wrong for lenders to charge higher interest rates to poor people than they charge the low-credit-risk customers."

8. It is important to emphasize that association is not the same thing as causation. Discuss the following points with regard to this point.

   a. Skirt lengths tend to rise during prosperous times (1920s and 1960s, for example) and fall during bad times (1930s). Therefore, prosperity is caused by short skirts, whereas hard times result from low hemlines.

   b. High crude oil prices caused the inflation experienced by the United States during the 1970s.

   c. The post-World War II baby boom caused the prosperity of the period from 1946 to 1965.

   d. War causes inflation.

9. Provide examples that illustrate the fallacy of composition, such as the following statements:

   a. “Total output remains virtually unchanged whether I work or not; thus output is largely unaffected by whether or not people work.”

   b. “I am no more likely to have an accident by driving ten miles over the speed limit than by obeying the limit. Thus, even if everyone drove 10 miles over the speed limit, the number of automobile accidents would not change.”

   c. “Aliyah, a Kansas wheat farmer, doubled her income this year when she doubled her production of wheat. If all wheat farmers doubled their production of wheat, they could double their annual income.”

10. The Critical Analysis questions at the end of each chapter are very useful in getting students to think more clearly about issues and events in the real world. Frequently, they can be used to also stimulate classroom discussion. Our experience suggests that only by *using* the economic way of thinking can most students really learn it.

11. A bird-watching analogy can help students see the usefulness of the economic way of thinking. Just as training and experience direct birdwatchers “where to look” to spot various birds, the economic way of thinking directs students to look at decision makers’ incentives to “see” the predictable consequences of actions and policies. This is why those trained in economics can often find predictable policy consequences that others are unable to grasp very easily.

12. Another analogy that can help students see the power of the economic way of thinking is the framing of a building. Just as buildings will not be structurally sound if the framing is not done correctly, economic analyses will be faulty unless it is built on the framework of the set of incentives faced by the relevant decision makers. This is why economists spend so much effort trying to properly specify the incentives facing the actors involved, because predictions that are inconsistent with actors’ incentives are likely to be incorrect.

13. In talking about choices and costs, one helpful illustration is to show that sometimes it is cheaper to make some mistakes than to be right all of the time. This is true whenever the costs associated with being wrong a certain fraction of the time are expected to be low compared to the costs of avoiding such mistakes (although these expectations themselves may prove incorrect). Examples run the gamut from dating (“you’ve got to kiss a lot of frogs before you find your prince”), to exams (you don’t generally want to incur the costs to get every problem on an exam correct because you can miss some and still get an A), to buying “off brands” when shopping (where you trade off lower prices for greater risks of unsatisfactory product performance).

HINTS FOR ANSWERING CRITICAL ANALYSIS QUESTIONS

2. Production of scarce goods always involves a cost; there are no free lunches. When the government provides goods without charge to consumers, other citizens (taxpayers) will bear the cost of their provision. Thus, provision by the government affects how the costs will be covered, not whether they are incurred.

6. Self-interest implies neither selfishness nor greed. Neither does it imply that people are *only* interested in their own welfare. Self-interest and selfishness do not have the same meaning. Webster defines self-interest as “concern for one’s own well-being.” There is no implication that a self-interested person is either desirous of the possessions of others or seeking to gain at the expense of others. In contrast, Webster defines selfishness and greed as “pursuit of one’s own welfare *without regard for the welfare of others.*” A selfish person willingly pursues gain at the expense of others.

11. Statements (a) and (c) are normative and statements (b) and (d) are positive.

Chapter 2
Some Tools of the Economist

OUTLINE

I. What Shall We Give Up?
- A. Opportunity cost
  1. The highest-valued activity sacrificed in making a choice
  2. Subjective and vary across individuals
- B. Opportunity cost and the real world
  - a. Monetary cost: tuition, books
  - b. Non-monetary cost: forgone earnings
    1. If the opportunity cost of college rises (e.g. tuition rises), then one will be less likely to attend college.

II. Trade Creates Value
- A. Voluntary exchange
  1. When individuals engage in voluntary exchange, both parties are made better off.
  2. By channeling goods and resources to those who value them most, trade creates value and increases the wealth created by society's resources.
- B. Transactions costs—A barrier to trade
  1. Transactions costs: the time, effort, and other resources needed to search out, negotiate, and consummate an exchange
     - a. Transactions costs reduce our ability to produce gains from potential trades.
- C. The middleman as a cost reducer
  1. Middleman: a person who buys and sells, or who arranges trades
     - a. A middleman reduces transactions costs.
     - b. The Internet lowered transactions costs.

III. The Importance of Property Rights
- A. Private property rights
  1. Property rights: the right to use, control, and obtain benefits from a good or service
  2. Several features of private property rights
     - a. They provide the right to exclusive use.
     - b. They provide legal protection against invaders.
     - c. They provide the right to transfer to another.

B. Private property rights incentives
   1. Private owners can gain by employing their resources in ways that are beneficial to others, and they bear the opportunity cost of ignoring the wishes of others
   2. Private owners have a strong incentive to care for and properly manage what they own.
   3. Private owners have an incentive to conserve for the future—particularly if the property is expected to increase in value.
   4. Private owners have an incentive to lower the chance that their property will cause damage to the property of others.
      a. Private ownership links responsibility with the right of control.

C. Private ownership and markets
   1. When private property rights are protected and enforced, permission of the owner is required for use of a resource.
      a. If you want to use a good or resource, you must either buy or lease it from the owner.
      b. Individuals and firms are faced with the cost of using scarce resources.
   2. Market prices provide a strong incentive for private owners to consider the desires of others and to use and develop resources that are highly valued by others.

IV. Production Possibilities Curve

A. Shifting the production possibilities curve outward
   1. An increase in the economy's resource base would expand our ability to produce goods and services.
   2. Advancements in technology can expand the economy's production possibilities.
   3. An improvement in the rules under which the economy functions can also increase output.
   4. By working harder and giving up current leisure, we could increase our production of goods and services.

B. Production possibilities and economic growth
   1. Economic growth is simply an outward shift in the curve through time. The more rapidly the curve shifts outward, the more rapid is economic growth.

V. Trade, Output, and Living Standards

A. Division of labor
   1. Division of labor: breaks down the production of a commodity into a series of specific tasks, each performed by a different worker.
   2. Division of labor increases output for three reasons:
      a. Specialization permits individuals to take advantage of their existing skills.
      b. Specialized workers become more skilled with time.
      c. Permits adoption of mass-production technology.

B. Gains from specialization and division of labor
   1. Law of comparative advantage: individuals, firms, regions, or nations can gain by specializing in the production of goods they produce cheaply (at low opportunity cost) and exchanging them for goods they cannot produce cheaply (at high opportunity cost).

C. Gains from mass production methods
1. Makes it feasible for the firms to adopt more efficient, large-scale production processes.

D. Gains from innovation
1. Trade makes it possible to realize gains from the discovery and dissemination of innovative products and production processes. Economic growth involves brain power, innovation, and the application of technology

VI. Human Ingenuity Entrepreneurship, and the Creation of Wealth

A. Economic pie
1. Economic goods are the result of human ingenuity and action; thus the size of the economic pie is variable.
   a. At any point in time, our ability to produce goods and services is constrained by the availability of resources, technology, institutions, and human effort.
   b. With the passage of time, however, output can be expanded through investment and the discovery of better ways of doing things.

VII. Economic Organization

A. Methods of economic organization
1. Market organization: A method or organization that allows unregulated prices and the decentralized decisions of private property owners to resolve the basic economic problems.
   a. Sometimes market organization is called capitalism.
2. Political Organization: Collective decision-making is the method of organization that relies on public-sector decision-making to resolve basic issues.
   a. An economic system in which the government owns the income-producing assets and directly determines what goods they produce is called socialism.
   b. In a democratic process, decision-makers have to consider how their actions will influence their election prospects. Otherwise, their tenure will be short.

FOCUS QUESTIONS

As you read this chapter, look for answers to the following questions:

- What is opportunity cost? Why do economists place so much emphasis on it?
- How does private ownership affect the use of resources? Will private owners pay any attention to the desires of others?
- What does a production possibilities curve demonstrate?
- What are the sources of gains from trade? How does trade influence our modern living standards?
- What are the two major methods of economic organization? How do they differ?

CONTEXT

In this chapter, we introduce the student to some basic economic tools—opportunity cost, the production possibilities curve, the law of comparative advantage, property rights, and the theory of exchange. The basic description of these concepts, without applications, are often boring to the student. Accordingly, it is vitally important that, as instructors, we present interesting and creative examples to help the student visualize and retain these concepts. Two alternative institutional arrangements—market and government planning—are available to deal with economic issues. In this chapter, basic tools are introduced and the stage is set for the following three chapters.

IMPORTANT POINTS AND TEACHING SUGGESTIONS

1. Clearly, opportunity cost is the most vital and widely applicable concept in economics. From the beginning, students should be taught to think of "costs" as "the highest-valued alternative given up when a choice is made." Use of examples with which students can readily identify will help to reinforce the concept. What does the student give up when he studies economics for an hour? When she works 10 hours per week? When he owns a car and drives 50 miles a week? In each case the answer is the highest-valued alternative that could have been chosen (consumed) had the choice not been made. Assignment of Critical Analysis question 3 will help the student understand this important concept.

2. The fact that trade creates value, the role of transactions costs, and the middleman's reduction of transactions costs are introduced. Later in the chapter, the myth that trade is a zero sum game is dispelled. Students might gain from a discussion of why it might be considered "socially irresponsible" to sell a used car too cheaply, rather than waiting until a buyer comes along who puts a higher value on the car and is willing to pay more. Of course, the resale market is a potential antidote to the problem.

3. The section on property rights is important. Students need to understand how privately held rights hold owners accountable, in an opportunity cost sense, for opportunities missed, and for potential options turned down. Additional examples of how local businesses or landowners might lose by overlooking new ways to meet consumer desires will help drive this point home. Discussion of Critical Analysis questions 8 and 9 will help students better understand the economic function of private property.

4. The concept of production possibilities provides the foundation for the constraints on aggregate supply that will be discussed later. Resources can be used to produce alternative commodities. However, when resources are being utilized efficiently, production of more of one good will necessitate less of something else being produced. There are no free lunches when resources are utilized efficiently. Be careful not to give students the impression that an economy confronts either an automatic or an immovable production possibilities curve. *Institutional arrangements, work effort, the past investment rate,* and *economic efficiency* are important determinants of an economy's production possibilities.

5. The law of comparative advantage is introduced here since it ties in nicely with both opportunity cost and attainment of maximum output from one's resource base. The concept is general and applies to specialization and trade between individuals, regions, and nations. It explains why specialization and trade can (and do) increase wealth. In our judgment, it is a mistake to relegate it to a chapter on international trade.

6. The myth dispelled in this chapter is the dangerous and increasingly popular misconception that when one person gains from a transaction, another must lose. The myth can be used as a focus for a lively class discussion on exchange and economic nonsense.

7. It is difficult to overemphasize the importance of incentives and the broadness of this basic principle of economics. Critical Analysis question 14 should be an interesting starting point for a classroom discussion on this topic.

8. The conclusion of Chapter 2 would be an excellent time to give a short quiz. Ample questions, designed to test both understanding and application of the basic tools presented in these introductory chapters, can be found in the Microeconomic and Macroeconomic Test Banks.

9. Teachers are always looking for new examples illustrating the gains from specialization and trade. I have used one involving a “mythical” couple named Natalia and Roberto to supplement the text presentation. Each must chop one cord of wood and decorate one room each day. Nancy can do either in one hour; Ronnie can chop a cord of wood in two hours and decorate a room in 1-1/2 hours. Starting from this basic data, the normal conclusions can be drawn about absolute advantage and comparative advantage, how comparative advantage is just another term for lower opportunity costs, gains from trade, and the limitations imposed by transactions costs (how long they haggle about the terms of trade must be weighed against the time savings from specialization).

10. Since this chapter is the main one dealing with the concept of opportunity cost, it needs to be emphasized that costs are attached to choices, not goods. One effective way to do this in class is to ask “What’s the cost of a car?” and then lead the students to see that their answers do not make sense without a verb describing what action involving a car is being contemplated. One can speak of the cost of **verbing** a car (buying, owning, driving, insuring, borrowing, selling, etc.), but not sensibly of the cost of a car.

11. A way to integrate student understanding of how value is created and the crucial role of entrepreneurship in the process is to show students that all forms of creating value involve one or more of the following: resources are being moved from less- to more-valuable forms (what we typically think of as production does not create atoms; it simply rearranges them), from less- to more-valuable locations (the value created by transportation), from less- to more-valuable time periods (the value created through speculation), or from lower valuing to higher valuing uses and/or users (the value created through exchange). In each case, there is large dose of entrepreneurship in trying to discover higher-valued forms, locations, times, and higher-valuing users than others have discovered.

12. There are many illustrations that can be used to supplement the text’s discussion on the importance of property rights under differing incentive structures that are faced by different parties. Examples include why your athletic team’s coach wants you in better shape than you do, why your mother wants you to get better grades than you do, why draftees and jurors tend to be used inefficiently, and why damage deposits arise as a way to make renters act more like they were owners.

13. Activities 1 to 5 described in the next section will help reinforce the material in Chapter 2.

14. The “Applications in Economics” feature on endangered species is the first of several in the book, designed to show that economics can be fruitfully applied to contemporary problems in

the real world—in this case, how private property rights can help solve problem of protecting endangered species.

15. This chapter includes three "Keys to Economic Prosperity" which highlight the main sources of economic prosperity (Private Ownership, Gains from Trade, Human Ingenuity). In all, 12 of the most important factors that underlie modern economic prosperity are included at appropriate places throughout the text. These "keys to prosperity" are also listed in the front cover end papers.

16. The addendum to the chapter gives a detailed numerical example of comparative advantage, specialization, and the gains from trade. Going over a similar example in class helps reinforce the concepts of comparative advantage and gains from trade with students.

ACTIVITIES

1. Getting Dressed in the Global Economy

Type:	In-class assignment
Topics:	Specialization, interdependence, self-interest, consumer choice, international linkages
Textbook:	Chapter 1: The Economic Approach Chapter 2: Some Tools of the Economist
Materials Needed:	none
Time:	20 minutes
Class limitations:	works in any size class

Purpose

The advantages of specialization and division of labor are very clear in this example. The worldwide links of the modern economy are also illustrated. We depend on thousands of people we don't know, won't see, and don't think of, in order to get dressed in the morning. Self-interest follows naturally from interdependence. Wages, profits, and rents give people the incentive to perform these varied tasks. We depend on them to clothe us, and they depend on our purchases for their income.

Instructions

Ask the class to answer the following questions. Give them time to write an answer to a question, then discuss their answers before moving to the next question. Question 1 can be answered with a brief phrase. Question 2 is the core of the assignment and takes several minutes. Ask them to list as many categories of workers as possible. (Offering a dollar to the first student to list 20 categories adds a competitive element.) Question 3 introduces demand concepts; most of the determinants of demand can be introduced during its discussion. For question 4, ask the class to look at the country-of-origin tags sewn in their garments.

1. Where did your clothes come from?

2. Who worked to produce your clothes?

3. What things do you consider when buying a garment?

4. Where were your clothes produced (what countries)?

Common answers and points for discussion

1. Where did your clothes come from?

   There are many possible ways to answer, but a majority of students will say "the mall," "Target," or another retail outlet. Some may say "a factory," "a sweatshop," or "a foreign country."

   Mention the importance of markets here (this can be emphasized by asking "Is anyone wearing something made by a friend or relative?"). Discuss distribution versus production.

2. Who worked to produce your clothes?

   There is no end to the possible answers; garment and textile workers are obvious, but most students will also list raw materials, transportation, management, design, or machinery. Some think more broadly, mentioning inventors, road crews, bankers, oil refiners, engineers, and accountants.

   Three important points are specialization, interdependence, and self-interest.

3. What things do you consider when buying a garment?

   Most answers focus on preferences (fit, style, quality, color). Price is cited less frequently. Ask about the importance of price until someone volunteers that income is important and the prices of substitute goods are important. Expectations of price change (e.g. “clearance sales”) can also be discussed. Few students mention complementary goods and most reject the idea of choosing a sweater to match a particular outfit. More convincing sets of complements involve activities and garments: skiing and insulated overalls; surfing and wetsuits; aerobics and spandex.

4. Where were your clothes produced (what countries)?

   A large number of countries will be represented, even in small classes. Students are usually surprised to find how many garments are domestically produced. Asia is always well represented. Latin American and European goods appear in smaller numbers. African products are conspicuously absent.

   This pattern shows the limits of simple explanations such as “cheap labor.” Briefly discuss the importance of comparative advantage, specialization, exchange rates, tariffs, and quotas.

2. Screwdrivers and Bloody Marys

Type:	In-class demonstration
Topics:	graphing, opportunity cost, choice
Textbook:	Chapter 2: Some Tools of the Economist
Materials Needed:	none
Time:	10 minutes
Class limitations:	works in any size class

Purpose

This activity leads students from a simple graphing exercise to the concepts of scarcity, opportunity cost, and choice.

Instructions

Draw a graph with Bloody Marys on the horizontal axis and Screwdrivers on the vertical axis.

A Bloody Mary contains tomato juice and one shot of vodka. A Screwdriver contains orange juice and one shot of vodka. Assume we have plenty of orange juice and tomato juice, but only one small bottle of vodka, containing six shots.

How many Bloody Marys could we make if we only made Bloody Marys?

How many Screwdrivers could we make if we only made Screwdrivers?

Could we make six of both drinks? Why not?

On your graph, show all the possible combinations of Bloody Marys and Screwdrivers that could be made, given a small bottle of vodka.

Points for discussion

The combinations will make a continuous line, since we could pour half drinks, or quarter drinks, or any fraction of either drink.

Several basic graphing techniques can be demonstrated: inverse relation, negative slope, linear relation, and so on.

The economic points are more interesting. We can produce any combination on or inside the line. If we produce inside the line, say two Screwdrivers and two Bloody Marys, we are not fully using our resources. This is inefficient.

If we do use all of our scarce resources, increasing production of one drink requires sacrificing production of the other. This lost production is opportunity cost.

Scarcity, or limited resources, requires choice. Producing a Bloody Mary means we cannot use those resources to produce a Screwdriver. Opportunity costs exist whenever we make choices.

3. Realism and Models: An Analogy

Type:	In-class demonstration
Topics:	models
Textbook:	Chapter 2: Some Tools of the Economist
Materials Needed:	airplane kit, sheet of paper, whirl-a-gig wing toy (Note: the whirl-a-gig wing toy is a helicopter wing on a stick; it is often sold in museum gift shops, as well as toy stores.)
Time:	5 minutes
Class limitations:	works in any size class

Purpose

Students frequently complain about the lack of realism in economic models. This demonstration uses airplane toys to illustrate that simplicity can be an asset in modeling.

Instructions and points for discussion

Ask the class if a realistic model is better than an unrealistic model. Realism, of course, will be favored.

Show them the airplane model kit. Describe some of the details included in the model (rivets, canopy, struts, etc). Shake the box to rattle the large number of parts. This a fairly realistic model, although obviously not a real airplane. Its complexity adds realism, but at a cost; assembling the model is very time consuming. Drop the box on the floor. Tell the class, “this model (even when completed) can’t fly.”

Take the sheet of paper and fold it into a paper airplane. Show the class this new model. Its virtues include simplicity and ease of assembly, but it is less realistic than the hobby shop airplane: no rivets, no seats, no windows. Then throw the paper airplane and explain, “while less-detailed, this model can glide through the air.”

Show them the whirl-a-gig wing toy. This model looks nothing like an airplane—no body, no tail—just a T-shaped piece of wood. Yet this model does something the other two models can’t do: It actually generates lift. This toy displays the same aerodynamic principles as a real airplane wing; It truly flies. Twirl the stick between your palms and the whirl-a-gig toy will fly over your head.

Economic models are like the whirl-a-gig model. They are much less complex than the real world, but they can show how markets actually work.

4. A Short Trip with Many Contributors

Type:	In-class assignment
Topics:	Specialization, interdependence, self-interest, international linkages, role of government
Textbook:	Chapter 2: Some Tools of the Economist
Materials Needed:	none
Time:	20 minutes
Class limitations:	works in any size class

Purpose

This assignment shows the advantages of specialization and division of labor, and global links. It also introduces concepts of public and private financing.

Instructions

Ask the class to answer the following questions. Give them time to write an answer to a question. Then discuss their answers before moving to the next question.

1. Think of a recent trip you have taken. The distance traveled is unimportant, just choose a specific trip. Where did this trip start and finish?

2. Who produced the goods and services that made your trip possible? (List as many types of workers as possible.)

3. How were the different elements of your trip financed (e.g. the vehicle, the road network, or the airport)?

Common answers and points for discussion

2. Who produced the goods and services that made your trip possible?

   The specific answers will vary depending on the mode of travel. The discussion below focuses on automobiles, but the ideas easily extend to airplanes, buses, trains, or boats.

   Most students will include autoworkers, gas station attendants and, if they traveled through snow, road maintenance crews. These answers touch on three important elements—the vehicle, the fuel, and the transportation network—but the details are much more complex. Any single element represents the work of a vast interlinking network of firms and individuals.

   Look, for example, at a car produced in Michigan. This car is made up of thousands of components, including tires produced in Ohio. These tires are made of many materials including rubber, produced from petroleum. The petroleum, perhaps, was refined in New Jersey from oil pumped from the North Sea. Extracting this oil required a multitude of resources including warm clothing for the drill workers. One essential garment could be a warm parka filled with goose down. The down comes from geese raised in southern China.

   This can be repeated in a million directions for any individual component—miners to extract ores, cooks to feed the miners, farmers to supply the cooks. Of course a crowd of others are needed: accountants, designers, managers, inventors, engineers, janitors, secretaries, computer operators, communications technicians, chemists, and so on.

And this is only for the automobile itself. The roads have been constructed through a similar web of work, from the cement mixers to workers who produce the tiny glass beads that make highway paint reflect light. Similarly the fuel has passed through a chain of retailers, jobbers, refiners, shippers, and oil field workers.

One important point is the complexity and connectedness of the modern economy. Change in one part of the world can affect many other countries. A second point is people work to earn money. The Chinese goose farmer isn't motivated by concern for an automobile produced 7,000 miles away, or even for the individuals wearing the goose down parka. He works to better his own economic well-being. Wages, profits, and rents coordinate this complex network.

3. How were the different elements of your trip financed?

   Public and private financing are both involved in transportation. The students (or their parents) typically pay for gasoline, automobiles, airfare, or bus tickets, often using some form of credit. Highways, roads, and airports are usually publicly financed through bonds and taxes.

   This can be a good place to introduce credit markets, their regulation, and the role of government.

5. Lawless Transactions

Type:	In-class demonstration
Topics:	the legal system and property rights
Textbook:	Chapter 2: Some Tools of the Economist
Materials Needed:	a volunteer, a paper sack
Time:	15 minutes
Class limitations:	works in any size class

Purpose

This example shows the importance of the legal system as part of the institutional framework of a market system. It illustrates that even simple market transactions rely on an established body of law. Four required elements for a legal system can be demonstrated. A legal system needs to: 1) enforce contracts 2) define and protect property 3) prevent fraud 4) define and enforce liability.

Instructions

Explain that the transactions in this example are only hypothetical; no money or goods will actually be exchanged.

Ask the volunteer how much he or she would be willing to pay for a backpack.

Agree to the offered price. This represents a typical market transaction, a good in exchange for a payment. While this transaction seems very straightforward, it won't work without a legal system.

Ask the volunteer, "What if you paid me, but I didn't give you anything in exchange? Would you be happy?"

Markets won't work if agreements are not honored. A legal system can eliminate this problem by enforcing contracts.

Now take a backpack from another student. Give it to the volunteer. In this case, both the buyer and seller are satisfied. The volunteer gets a backpack, the professor gets paid. Ask the class if anyone is unhappy.

The problem here is one of property rights. The professor has appropriated another student's backpack. This causes several problems for market transactions. If property is not protected, the volunteer has little incentive to buy the backpack since he or she could steal it and pay nothing. Further, the volunteer has little incentive to pay for something that could immediately be stolen by someone else. The legal system needs to define and protect property rights to allow market transactions to work.

Return the backpack to its owner.

Now give the volunteer a paper sack. Tell the volunteer you have a legally binding contract and you expect full payment. The problem here is misrepresentation. Legal systems can prevent this problem by stopping fraudulent contracts.

Finally tell the volunteer that you have a new backpack made of a high-tech material developed in the chemistry department. It's very strong, very light, and very fashionable. You make the transaction and everyone is happy. A couple of weeks pass, and the volunteer is studying in the library when the backpack bursts into flames and explodes. The new backpack material was internally unstable. The entire library burns down. Who should pay?

Is the student responsible for the damages? Should the professor pay? Or should the chemistry department be responsible? Determining liability is another important role for the legal system.

Points for discussion

The transitional economies of Eastern Europe provide daily examples of the problems of markets without established legal systems. Markets can be a very effective tool for allocation and distribution, but they only work within a social framework.

Definition of property rights may be trivial for personal property like a backpack, but more generally it's very important. Changes in property rules can cause big gains and losses. Environmental regulations (particularly those regarding wetlands or endangered species) and intellectual property rights have been recent controversies over property definition.

Defining liability continues to be an important public issue.

HINTS FOR ANSWERING CRITICAL ANALYSIS QUESTIONS

1. False. Jones must value the car more than $5,000 and Smith less than $5,000; otherwise, the exchange would not take place.

4. The statement reflects the view that “exchange is a zero sum game.” This view is false. No private business can force customers to buy. Consumers purchase various goods and services from businesses because they gain by doing so. If they did not gain, they would not continue to purchase items from a business. Similarly, the business firms also gain from their production and sale activities. Mutual gain provides the foundation for voluntary exchange, including that between business firms and their customers.

5. The major function of the middleman is to increase the value of resources by reducing transaction costs and thereby facilitating the movement of goods and services into higher-valued uses. The people would be worse off without middlemen since transaction costs would be higher and less trade would occur.

11. If consumer demand for beef fell, the profitability of cattle herding would fall as well. Many cattle farmers would let their cattle herds dwindle and quit keeping cattle altogether. The result would be a smaller population of cattle, not a larger one. Because cattle are privately owned, an increase in their value in human consumption results in more cattle being kept, whereas a decrease would result in fewer cattle. To “save the cows,” you should eat more beef!