

Chapter 2—Prices, Costs, and the Gains from Trade

TRUE/FALSE

1. The term *price* as used in microeconomics refers to the absolute price of a commodity.
ANS: F PTS: 1
2. The relative price of bread in terms of wine is the amount of wine which can be traded in exchange for a loaf of bread.
ANS: T PTS: 1
3. When relative prices are measured in terms of dollars, the term *dollar* refers to currency.
ANS: F PTS: 1
4. When absolute prices are measured in terms of dollars, the term *dollar* refers to currency.
ANS: T PTS: 1
5. Relative prices cannot fall when absolute prices are rising.
ANS: F PTS: 1
6. A rise in absolute prices guarantees that relative prices will rise as well.
ANS: F PTS: 1
7. If the relative price of a gallon of water in terms of milk increases from 1 gallon to 1.5 gallons of milk, then the relative price of milk has fallen.
ANS: T PTS: 1
8. If all absolute prices increase by 10%, then the economy's relative prices will remain unchanged.
ANS: T PTS: 1
9. An increase in the price of gasoline relative to telephones will cause inflation.
ANS: F PTS: 1
10. When silk is shipped from China to Atlanta, transportation costs will make the price of high-quality silk relative to low-quality silk higher in Atlanta than in China.
ANS: F PTS: 1
11. To an economist, a cost is a forgone opportunity.
ANS: T PTS: 1

12. The most efficient typist is the one who can type the greatest number of words per minute.

ANS: F PTS: 1

13. The most efficient house cleaner is the person who has the lowest cost of cleaning houses.

ANS: T PTS: 1

14. The cost of producing furniture is not the resources used in its production, but the alternative uses for those resources.

ANS: T PTS: 1

15. If only materials and workers are used to make a computer and the materials cost \$100 and labor costs \$200, then the cost of making the computer is \$300.

ANS: F PTS: 1

16. A farmer has a comparative advantage at growing wheat if his cost of growing wheat is smaller than his cost of growing any other crop.

ANS: F PTS: 1

17. A farmer has a comparative advantage at growing wheat if his cost of growing wheat is less than the cost of another farmer growing wheat.

ANS: T PTS: 1

18. By definition, someone who has an absolute advantage must also have a comparative advantage.

ANS: F PTS: 1

19. If there are only two activities on which a person can work, and there are two people to do the work, then it is impossible for one person to have a comparative advantage in both activities.

ANS: T PTS: 1

20. By definition, someone who has a comparative advantage in producing soft drinks must also have an absolute advantage in producing soft drinks.

ANS: F PTS: 1

21. If each person specializes in his area of comparative advantage and then trades for the goods he wants to have, everyone will be made better off.

ANS: T PTS: 1

22. If no one in a community desires to watch television, then it would be a waste of resources for the community to produce television sets.

ANS: F PTS: 1

23. If good wines can be produced in Turkey at costs lower than in the wine exporting countries, but the local population drinks little wine, then Turkey should not produce wine.
ANS: F PTS: 1
24. Trade will never be beneficial when both parties have a comparative advantage in producing the same good.
ANS: F PTS: 1
25. If everyone had the same abilities, then no one could benefit from trade.
ANS: F PTS: 1
26. Trading is beneficial whenever people differ in their abilities or differ in their tastes.
ANS: T PTS: 1
27. In order for there to be a gain from trade, there has to be a difference in either tastes or abilities.
ANS: F PTS: 1

MULTIPLE CHOICE

1. The prices typically studied in microeconomics are
 - a. relative prices.
 - b. absolute prices.
 - c. money prices.
 - d. retail prices.ANS: A PTS: 1
2. The absolute price of a commodity is the amount of
 - a. other goods that must be sacrificed in order to purchase one unit of the commodity.
 - b. resources required to produce one unit of the commodity.
 - c. currency needed to purchase one unit of the commodity.
 - d. time and effort used to develop a market for the buying and selling of the commodity.ANS: C PTS: 1
3. The difference between an absolute price and a relative price is that:
 - a. absolute prices are based on costs of production, relative prices are based on market exchange.
 - b. absolute prices are in terms of currency, relative prices are in terms of another good.
 - c. absolute prices are in terms of another good, relative prices are in terms of currency.
 - d. absolute prices never change, relative prices change with inflation.ANS: B PTS: 1

4. Suppose that there are only two goods in Japan, sushi and saki. The absolute price of a 100-gram plate of sushi is 200 yen, and the absolute price of a liter of saki is 100 yen. What is the relative price of saki in terms of sushi?
- 100 grams per liter.
 - 200 grams per liter.
 - 50 grams per liter.
 - 400 grams per liter.

ANS: C PTS: 1

5. Suppose there are only two goods: bread and wine. In Mexico, the absolute price of wine is 30 pesos per bottle. If the relative price of wine in terms of bread is 5 loaves per bottle, then the absolute price of bread is
- 5 pesos per loaf.
 - 6 pesos per loaf.
 - 25 pesos per loaf.
 - 150 pesos per loaf.

ANS: B PTS: 1

6. Suppose there are only two goods: guns and roses. If the relative price of guns falls, then the relative price of roses
- must also fall.
 - must rise.
 - is unaffected.
 - could rise, fall, or remain unchanged.

ANS: B PTS: 1

7. If inflation causes the absolute prices of all commodities to double, then the relative prices
- will also double.
 - will be halved.
 - will be unchanged.
 - may rise, fall, or remain unchanged.

ANS: C PTS: 1

8. When inflation causes the absolute prices of all commodities to rise, what happens to the relative prices of those commodities?
- The relative prices also rise.
 - When absolute prices rise, the corresponding relative prices fall.
 - The relative prices are unaffected by changes in absolute prices.
 - No prediction can be made about changes in relative prices.

ANS: D PTS: 1

9. The price of silver increases from \$10 per ounce to \$15 per ounce while the price of gold increases from \$300 per ounce to \$310. In this situation, the price of silver relative to the price of gold has
- fallen.
 - risen.
 - remained the same.
 - cannot be determined given the information provided.

ANS: B PTS: 1

10. Suppose that because of inflation, the absolute price of a gallon of milk increases by 20% and the absolute price of a gallon of gasoline increases by 10%. In this situation, the price of milk relative to the price of gasoline
- falls.
 - rises.
 - remains the same.
 - changes unpredictably.

ANS: B PTS: 1

11. Suppose that due to technological innovations, the absolute price of a recordable CD declines by 25% while the absolute price of a recordable cassette tape declines by 10%. In this situation, the price of the CD relative to the price of a tape
- falls.
 - rises.
 - remains the same.
 - changes unpredictably.

ANS: A PTS: 1

12. Prices are commonly measured in "dollars per unit." In this context, the term *dollar* as used by the microeconomist
- is another term for *currency*.
 - refers to a representative basket of goods in the economy.
 - represents the resources used in the production of the good being considered.
 - means that the price has been adjusted for inflation.

ANS: B PTS: 1

13. Suppose there are only two goods: lettuce and grapes. In California, a head of lettuce sells for 50¢ and a bunch of grapes sells for \$1. In Nebraska, 25¢ must be added to these absolute prices to cover transportation costs. How do these transportation costs affect the relative prices of lettuce and grapes?
- The transportation costs do not affect the relative prices of lettuce and grapes.
 - The relative prices of lettuce and grapes are both higher when transportation costs are added.
 - The addition of transportation costs makes the relative price of grapes higher and the relative price of lettuce lower.
 - The transportation costs raise the relative price of lettuce but lower the relative price of grapes.

ANS: D PTS: 1

14. In France, two qualities of wines are produced - table wine sold in bulk (bring your own bottle) and a higher quality of wine. Suppose that the English import all their wine from France. Then, we would expect to find, on average that
- the English drink more of the higher quality of wine, because transportation costs will lower the relative price of high-quality wine relative to table quality wine.
 - the English will drink more table quality wine, because transportation costs will raise the relative price of table quality wine to high-quality wine.
 - the French will drink more of the high quality wine because transportation costs reduce demand for wine in England.
 - the French will drink more of the high quality wine because the wine is produced there.

ANS: A PTS: 1

15. Assume toys are produced using only labor and wood. Which of the following best describes the cost of producing toys?
- a. The number of dollars that the laborer spends to purchase the wood.
 - b. The amounts of labor and wood used in the production process.
 - c. The alternative uses that could be found for the labor and wood.
 - d. The monetary value of the labor and wood used.

ANS: C PTS: 1

16. Kelly has received a \$50 check from her Grandparents to help with her expenses at college. She has narrowed her choices of how to spend the money to three: a new backpack, a dinner out with a friend, a fleece vest. Of these she likes the vest best and the backpack least. What is her cost of buying the fleece vest?
- a. \$50.
 - b. A new backpack.
 - c. A dinner out with a friend.
 - d. Nothing since the money was a gift to her.

ANS: C PTS: 1

17. Suppose that in Paraguay, one of the poorest countries in the Americas, only two of the goods that are produced can compete in world markets, tea and DVD players. Given this success in exporting, Paraguay
- a. should specialize only in DVD players since tea production is an old industry.
 - b. should specialize in the production of tea, since its people are probably too poor to buy DVD players.
 - c. should stop exporting both goods and produce more food products for its people.
 - d. is better off producing both goods in which it has a comparative advantage, relative to all other goods.

ANS: D PTS: 1

18. Suppose there are only two goods: food and clothing. What does it mean for the U.S. to have a comparative advantage in food production?
- a. The U.S. needs fewer resources to grow a given amount of food than do other nations.
 - b. The U.S. sacrifices less clothing production to grow a given amount of food than do other nations.
 - c. In the U.S., food production needs fewer resources than does a comparable amount of clothing production.
 - d. In the U.S., food production costs less than does clothing production.

ANS: B PTS: 1

19. In 1 hour, Robinson Crusoe can either shoot 4 birds or catch 4 fish. A typical native on a nearby island can either shoot 5 birds or catch 10 fish in an hour's time. Which of the following is true according to the doctrine of comparative advantage?
- a. Crusoe will be better off if he specializes in either activity and then trades with the natives.
 - b. The natives have a comparative advantage in both shooting birds and catching fish, so Crusoe cannot make himself better off by trading with the natives.
 - c. Crusoe should concentrate on shooting birds and then trade with the natives to obtain fish.
 - d. Crusoe should spend his time catching fish, and he should trade with the natives to obtain birds.

ANS: C PTS: 1

20. To be as well off as possible, a nation should produce
- only those goods that its populace desires.
 - the good within its productive capabilities that commands the highest price in the world market.
 - the good that requires the fewest resources to produce.
 - whatever good it can produce at a cost lower than that incurred by other nations.

ANS: D PTS: 1

21. Farmer Ken in Kentucky can raise either 80 pounds of tobacco or 40 bushels of cotton on an acre. Farmer Calvin in California can raise either 150 pounds of tobacco or 50 bushels of cotton on an acre. Which farmer can produce tobacco more efficiently?
- Farmer Ken in Kentucky.
 - Farmer Calvin in California.
 - The two farmers are equally efficient at growing wheat.
 - More information is needed to determine comparative advantage.

ANS: B PTS: 1

Mexico and Japan

The following questions refer to the following table which shows the abilities of Mexico and Japan to produce food and cloth. Food and cloth are the only two commodities in the world and their production requires only labor. The amounts of labor required to produce one unit of each of these commodities in the two countries are shown in the table below.

	Mexico	Japan
One Bushel of Food	3 hours	9 hours
One Bolt of Cloth	6 hours	12 hours

22. Refer to Mexico and Japan. What is the cost of producing 1 bushel of food in Mexico?
- 3 hours of labor.
 - 1/2 bolt of cloth.
 - 1/3 bushel of imported Japanese food.
 - 1/4 bolt of imported Japanese cloth.

ANS: B PTS: 1

23. Refer to Mexico and Japan. What is the cost of producing cloth in Japan?
- 1/2 bushel of food per bolt of cloth.
 - 3/4 bushel of food per bolt of cloth.
 - 4/3 bushels of food per bolt of cloth.
 - 3 bushels of food per bolt of cloth.

ANS: C PTS: 1

24. Refer to Mexico and Japan. Which country is the more efficient food producer, and which country is the more efficient cloth producer?
- Mexico is the more efficient food producer, and Japan is the more efficient cloth producer.
 - Japan is the more efficient food producer, and Mexico is the more efficient cloth producer.
 - Mexico is the more efficient producer of both goods.
 - Japan is the more efficient producer of both goods.

ANS: A PTS: 1

25. Refer to Mexico and Japan. Can trade in food and cloth benefit Mexico and Japan?
- a. It cannot benefit Japan, because Japan cannot successfully compete with Mexico.
 - b. It cannot benefit Mexico, because Japan is too small to be an effective trading partner.
 - c. It can benefit both only if the people in Mexico and Japan have different tastes.
 - d. It can benefit both if Mexico specializes in food and Japan specializes in cloth.

ANS: D PTS: 1

26. Refer to Mexico and Japan. Which of the following statements is true.
- a. Mexico has a comparative advantage in production of food.
 - b. Japan has an absolute advantage in production of food.
 - c. Mexico has a comparative advantage in production of cloth.
 - d. Japan has an absolute advantage in production of Cloth.

ANS: A PTS: 1

27. Refer to Mexico and Japan. What is the cost of producing 1 bolt of clothing in Mexico?
- a. 6 hours of labor.
 - b. 2 bushels of food.
 - c. 3 bushels of imported Japanese food.
 - d. 4 bolts of imported Japanese cloth.

ANS: B PTS: 1

28. Refer to Mexico and Japan. What is the cost of producing one unit of food in Japan?
- a. 2 bolts of cloth per bushel.
 - b. $\frac{4}{3}$ bolts of cloth per bushel.
 - c. $\frac{3}{4}$ bolts of cloth per bushel.
 - d. none of the above.

ANS: C PTS: 1

29. Amanda can prepare a Thai meal for a group in 2 hours and can type a 10 page paper in the same amount of time. Morgan can prepare the meal in 3 hours. Morgan will be the more efficient typist as long as she can type the a paper in less than
- a. 4 hours.
 - b. 3 hours.
 - c. 2 hours.
 - d. 1 hour.

ANS: B PTS: 1

30. A man can rewire a house in 12 hours and can panel a room in 15 hours, and his teenage son can rewire a house in 18 hours and can panel a room in 16 hours. Who is more efficient in rewiring a house, and who is more efficient in paneling a room?
- a. The father is more efficient at both activities.
 - b. The father is more efficient at rewiring a house, and the son is more efficient at paneling a room.
 - c. The father is more efficient at paneling a room, and the son is more efficient at rewiring a house.
 - d. The two are equally efficient at both activities.

ANS: B PTS: 1

31. If foreign professionals perform equal quality work more cheaply than American professionals it is because
- American professionals have lower opportunity costs than foreign professionals.
 - foreign professionals have lower opportunity costs than American professionals.
 - foreign professionals have a higher cost of living than American professionals.
 - American professionals have a higher cost of living than foreign professionals.

ANS: B PTS: 1

32. By and large, small countries tend to benefit the most from international trade because
- their citizens tend to be the most different from the rest of the world.
 - they are unable to achieve self-sufficiency.
 - they can collect large amounts of tariff revenue from trading with larger countries.
 - their citizens are more likely to prefer the high-quality, capital-intensive goods available only from larger countries.

ANS: A PTS: 1

33. If people have the same abilities, then
- they cannot gain from trade.
 - they can still gain from trade if they have different tastes.
 - they can still gain from trade as long as they specialize in different activities.
 - they can still gain from trade only if they are facing different absolute prices.

ANS: B PTS: 1

34. If people stand to produce at lower cost when specializing and producing in larger quantities
- they cannot gain from trade because each one is just as potentially productive as another.
 - they cannot gain from trade because most people's wants can be easily satisfied with what they can produce themselves.
 - they cannot gain from trade if they have similar tastes.
 - they can gain from trade by specializing and increasing productivity.

ANS: D PTS: 1

35. In a case where there are two possible work activities and two workers, which of the following is true regarding to comparative advantage?
- One person can have a comparative advantage in both activities.
 - Both people can have a comparative advantage in both activities.
 - No one can have a comparative advantage in either activity.
 - Each person must have a comparative advantage in one activity, but not both.

ANS: D PTS: 1

36. If a job requires two activities and there are two workers who can perform those activities, then which of the following statements regarding absolute advantage must be false?
- One worker can have an absolute advantage in both activities.
 - One worker may not have an absolute advantage in neither activity.
 - Neither worker can have an absolute advantage in either activity.
 - Both workers can have an absolute advantage in both activities.

ANS: D PTS: 1

37. The absolute price of beef in Japan is \$10.00 per pound and the absolute price of tuna is \$5.00 per pound then the relative price of tuna in terms of beef is
- one-half.
 - two.
 - fifteen.
 - fifty.

ANS: A PTS: 1

38. Suppose there are only two goods: guns and roses. In Los Angeles, the absolute price of roses is 50 dollars per dozen. If the relative price of roses in terms of guns is 1 guns per dozen roses, then the absolute price of guns is
- 5 dollars per gun.
 - 2 cents per gun.
 - 50 dollars per gun.
 - 50 cents per gun.

ANS: C PTS: 1

ESSAY

1. Suppose the price of coffee is \$6 per pound. If this price is an absolute price, what is meant by the phrase "\$6 per pound"? If this price is a relative price, what is meant by the phrase "\$6 per pound"?

ANS:

When absolute prices are used, the term *dollar* simply means the green pieces of paper used for currency in the U.S. If the absolute price of coffee is \$6 per pound, this means that the buyer must sacrifice \$6 in currency to purchase 1 pound of coffee. When relative prices are used, the term *dollar* is a convenient shorthand for a representative collection of other goods available in the economy. If the relative price of coffee is \$6 per pound, this means that the buyer can trade 6 units of other goods in exchange for 1 pound of coffee.

PTS: 1

2. Will people, on average, tend to eat more grapefruit in Florida or in Illinois? In which state will the people, on average, tend to eat better quality grapefruit? Explain, using the concept of relative price.

ANS:

Grapefruit are grown in Florida but not in Illinois, so transportation costs will make the price of grapefruit (relative to other foods such as corn) lower in Florida than in Illinois. Thus people in Florida will tend to eat more grapefruit than people in Illinois. However, the transportation costs will also lower the price of high-quality grapefruit relative to low-quality grapefruit. Thus the people in Illinois will on average be eating better quality grapefruit than will the people in Florida.

PTS: 1

3. The towns of Mattoon and Charleston can produce one of two goods: books and bagels. In Charleston factories, 6 laborers can produce 100 books in an hour, while 12 laborers can produce 400 bagels in an hour.
 - (i) What is the cost of producing books in Charleston?
 - (ii) Suppose the cost of producing books in Mattoon is 3 bagels per book. Which town should specialize in bagel production and which town should specialize in book production?

ANS:

- (i) In Charleston, 12 laborers can produce either 200 books or 400 bagels in one hour. Therefore, 1 book costs 4 bagels.
- (ii) If 1 book costs 3 bagels in Mattoon, then Mattoon is the low-cost book producer. Mattoon should specialize in book production, and Charleston should specialize in bagel production.

PTS: 1

4. Suppose there are only two goods (bread and wine) and only two countries (England and Portugal). In England, the cost of producing 1 bottle of wine is 4 loaves of bread. What is the cost of producing 1 loaf of bread in England? Under what circumstances will England specialize in bread production and purchase its wine from Portugal? Explain.

ANS:

If 1 bottle of wine costs 4 loaves of bread in England, then 1 loaf of bread must cost $1/4$ bottle of wine. For England to specialize in bread production, England must be a more efficient bread producer than Portugal, which means that England's cost of producing bread must be less than Portugal's cost. Thus if producing 1 loaf of bread in Portugal costs more than $1/4$ bottle of wine (or, equivalently, if producing 1 bottle of wine in Portugal costs less than 4 loaves of bread), then England will specialize in bread production and Portugal will specialize in wine production.

PTS: 1

5. Land in California is quite fertile and capable of growing large amounts of tobacco, while the land in New England is relatively rocky, of poorer quality, and capable of growing only smaller tobacco crops. Nevertheless, New England is a larger producer of tobacco than is California. Use the concepts of cost and comparative advantage to resolve this apparent contradiction.

ANS:

If land in California is used to grow tobacco, the opportunity to grow lettuce, grapes, oranges, and other valuable crops is sacrificed. On the other hand, the land in New England, while it can support tobacco, cannot support these other crops. Thus the opportunity cost of growing tobacco is higher in California than in New England, which gives New England a comparative advantage in tobacco production. As a consequence, New England will grow more tobacco than California, while California will grow more lettuce, grapes, and oranges than New England.

PTS: 1

6. North Dakota has 300 acres of farmland; each acre can produce either 20 bushels of wheat or 10 bushels of corn. Iowa has 200 acres of farmland; each acre can produce either 20 bushels of wheat or 30 bushels of corn.
- (i) What is the cost of growing a bushel of wheat in each state? What is the cost of growing a bushel of corn in each state?
 - (ii) Suppose each state is self-sufficient and there is no trade. If each state chooses to produce equal amounts of the two crops, how much wheat and corn will each state produce?
 - (iii) If the two states begin to trade, with each specializing in its area of comparative advantage, which state will produce wheat and which state will produce corn? How will the total production between the two states compare to the situation where each was self-sufficient?

ANS:

- (i) One bushel of wheat costs $\frac{1}{2}$ bushel of corn in North Dakota and costs $1\frac{1}{2}$ bushels of corn in Iowa. One bushel of corn costs 2 bushels of wheat in North Dakota and costs $\frac{2}{3}$ bushel of wheat in Iowa.
- (ii) To get equal amounts of the two crops, North Dakota must use $\frac{1}{3}$ of its farmland to grow wheat and the other $\frac{2}{3}$ to grow corn, giving it 2,000 bushels of wheat and 2,000 bushels of corn. Iowa must use $\frac{3}{5}$ of its farmland to grow wheat and the other $\frac{2}{5}$ to grow corn, giving it 2,400 bushels of wheat and 2,400 bushels of corn.
- (iii) North Dakota is the low-cost wheat producer and Iowa is the low-cost corn producer, so North Dakota will produce 6,000 bushels of wheat and Iowa will produce 6,000 bushels of corn. Total production has increased by 1,600 bushels of each crop over the situation where the two states were self-sufficient.

PTS: 1

7. A boss can type 200 words per minute and sell 2000 units of the company's product in one day. His assistant can type 150 words per minute and sell 1000 units of the company's product in one day. Discuss who has absolute and comparative advantages in the "production" of typing and selling.

ANS:

Because the boss can type faster than his assistant, he has an absolute advantage in typing. Because the boss can sell more units in a day, he also has an absolute advantage in selling. The assistant does not have an absolute advantage in either. However, the assistant does have a comparative advantage in typing since she gives up fewer units of sales by devoting her time to typing. Alternatively, the boss has a comparative advantage in selling.

PTS: 1

8. Laura can type a manuscript in two hours and her opportunity cost of one hour is \$25. Spencer can type the same manuscript in one hour and his opportunity cost of one hour is \$40. If Laura is charged with typing the manuscript, can both be made better off if Laura pays Spencer to type the manuscript instead? Explain.

ANS:

Laura's opportunity cost of typing the manuscript is \$50 while Spencer's opportunity cost is only \$40. Laura could pay Spencer any amount between \$40 and \$50 to type the manuscript and both would be better off. For instance, if she paid him \$45, each would benefit by \$5.

PTS: 1