

**Part B: Questions**

1. What is the difference between comparative advantage and absolute advantage?

2. You're given the following information about a newlywed couple and the time it takes each of them to do two different chores: vacuuming a room or washing a load of dishes.

	Mike	Debbie
Vacuum a room	60 minutes	45 minutes
Wash a load of dishes	30 minutes	45 minutes

(A) What is Mike's opportunity cost of vacuuming in terms of washing dishes?

(B) What is Mike's opportunity cost of washing dishes in terms of vacuuming?

(C) What is Debbie's opportunity cost of vacuuming in terms of washing dishes?

(D) What is Debbie's opportunity cost of washing dishes in terms of vacuuming?

(E) Who has the *absolute* advantage in vacuuming? \_\_\_\_\_

(F) Who has the *absolute* advantage in washing dishes? \_\_\_\_\_

(G) Who has the *comparative* advantage in vacuuming? \_\_\_\_\_

(H) Who has the *comparative* advantage in washing dishes? \_\_\_\_\_

(I) Who should do which chore and why? Base your answer only on the information above and on comparative advantage considerations.

# UNIT 1 Macroeconomics LESSON 1 ■ ACTIVITY 2 (continued)

3. Now, you're given the following information about Andy and Hannah and the time it takes each of them to clean an office and clean a jail cell:

	Andy	Hannah
Cleaning offices	60 minutes	20 minutes
Cleaning jail cells	30 minutes	15 minutes

- (A) What is Andy's opportunity cost of cleaning offices in terms of cleaning jail cells?
- (B) What is Hannah's opportunity cost of cleaning offices in terms of cleaning jail cells?
- (C) What is Andy's opportunity cost of cleaning jail cells in terms of cleaning offices?
- (D) What is Hannah's opportunity cost of cleaning jail cells in terms of cleaning offices?
- (E) Who has the *absolute* advantage in cleaning offices? \_\_\_\_\_
- (F) Who has the *absolute* advantage in cleaning jail cells? \_\_\_\_\_
- (G) Who has the *comparative* advantage in cleaning offices? \_\_\_\_\_
- (H) Who has the *comparative* advantage in cleaning jail cells? \_\_\_\_\_
- (I) Who should do which chore and why? Base your answer only on the information above and on comparative advantage considerations.

4. Consider the following two countries. Assume they produce only these two goods. *Note that productivity is now measured in how many goods can be produced per hour, the opposite of how we measured it in Questions 2 and 3.*

	United States	Japan
Cars	12	10
Computers	4	6

- (A) What is the United States' opportunity cost of making cars?

**UNIT 1** Macroeconomics **LESSON 1 ■ ACTIVITY 2** (continued)

(B) What is Japan's opportunity cost of making cars?

(C) What is the United States' opportunity cost of making computers?

(D) What is Japan's opportunity cost of making computers?

(E) Which country has the *absolute* advantage in cars? \_\_\_\_\_

(F) Which country has the *absolute* advantage in computers? \_\_\_\_\_

(G) Which country has the *comparative* advantage in cars? \_\_\_\_\_

(H) Which country has the *comparative* advantage in computers? \_\_\_\_\_

(I) Which country should produce which good and why? Base your answer only on the information above and on comparative advantage considerations.

5. Use the law of comparative advantage to explain why self-sufficiency leads to a lower standard of living.

## Demand Curves, Movements Along Demand Curves and Shifts in Demand Curves

### Part A

Figure 3.1 shows the market demand for a hypothetical product: Greebes. Study the data, and plot the demand for Greebes on the axes in Figure 3.2. Label the demand curve D, and answer the questions that follow. Write the correct answer in the answer blanks or underline the correct words in parentheses.



Figure 3.1

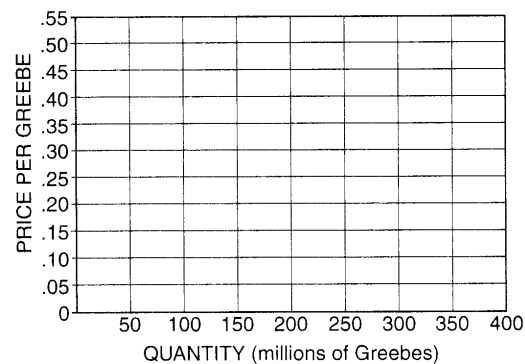
#### Demand for Greebes

Price (\$ per Greebe)	Quantity Demanded (millions of Greebes)
\$.10	350
.15	300
.20	250
.25	200
.30	150
.35	100
.40	50



Figure 3.2

#### Demand for Greebes



1. The data for demand curve D indicate that at a price of \$0.30 per Greebe, buyers would be willing to buy \_\_\_\_\_ million Greebes. Other things constant, if the price of Greebes increased to \$0.40 per Greebe, buyers would be willing to buy \_\_\_\_\_ million Greebes. Such a change would be a decrease in (*demand / quantity demanded*). Other things constant, if the price of Greebes decreased to \$0.20, buyers would be willing to buy \_\_\_\_\_ million Greebes. Such a change would be called an increase in (*demand / quantity demanded*).

Adapted from Phillip Saunders, *Introduction to Microeconomics: Student Workbook*, 18th ed. (Bloomington, Ind., 1998). Copyright ©1998 Phillip Saunders. All rights reserved.

2. Now, let's suppose there is a dramatic change in federal income-tax rates that affects the disposable income of Greebe buyers. This change in the *ceteris paribus* (all else being equal) conditions underlying the original demand for Greebes will result in a new set of data, shown in Figure 3.3. Study these new data, and add the new demand curve for Greebes to the axes in Figure 3.2. Label the new demand curve  $D_1$  and answer the questions that follow.



Figure 3.3

**New Demand for Greebes**

Price (\$ per Greebe)	Quantity Demanded (millions of Greebes)
\$.05	300
.10	250
.15	200
.20	150
.25	100
.30	50

3. Comparing the new demand curve ( $D_1$ ) with the original demand curve ( $D$ ), we can say that the change in the demand for Greebes results in a shift of the demand curve to the (*left / right*). Such a shift indicates that at each of the possible prices shown, buyers are now willing to buy a (*smaller / larger*) quantity; and at each of the possible quantities shown, buyers are willing to offer a (*higher / lower*) maximum price. The cause of this demand curve shift was a(n) (*increase / decrease*) in tax rates that (*increased / decreased*) the disposable income of Greebe buyers.
4. Now, let's suppose that there is a dramatic change in people's tastes and preferences for Greebes. This change in the *ceteris paribus* conditions underlying the original demand for Greebes will result in a new set of data, shown in Figure 3.4. Study these new data, and add the new demand curve for Greebes to the axes in Figure 3.2. Label the new demand curve  $D_2$  and answer the questions that follow.



Figure 3.4

**New Demand for Greebes**

Price (\$ per Greebe)	Quantity Demanded (millions of Greebes)
\$.20	350
.25	300
.30	250
.35	200
.40	150
.45	100
.50	50

Comparing the new demand curve ( $D_2$ ) with the original demand curve ( $D$ ), we can say that the change in the demand for Greebes results in a shift of the demand curve to the (*left / right*).

Such a shift indicates that at each of the possible prices shown, buyers are now willing to buy a (*smaller / larger*) quantity; and at each of the possible quantities shown, buyers are willing to offer a (*lower / higher*) maximum price. The cause of this shift in the demand curve was a(n) (*increase / decrease*) in people's tastes and preferences for Greebes.

### Part B

Now, to test your understanding, underline the answer you think is the one best alternative in each of the following multiple-choice questions.

5. Other things constant, which of the following would *not* cause a change in the demand (shift in the demand curve) for mopeds?
  - (A) A decrease in consumer incomes
  - (B) A decrease in the price of mopeds
  - (C) An increase in the price of bicycles, a substitute for mopeds
  - (D) An increase in people's tastes and preferences for mopeds
6. "Rising oil prices have caused a sharp decrease in the demand for oil." Speaking precisely, and using terms as they are defined by economists, choose the statement that best describes this quotation.
  - (A) The quotation is correct: An increase in price always causes a decrease in *demand*.
  - (B) The quotation is incorrect: An increase in price always causes an increase in *demand*, not a decrease in *demand*.
  - (C) The quotation is incorrect: An increase in price causes a decrease in the *quantity demanded*, not a decrease in *demand*.
  - (D) The quotation is incorrect: An increase in price causes an increase in the *quantity demanded*, not a decrease in *demand*.
7. "As the price of domestic automobiles has inched upward, customers have found foreign autos to be a better bargain. Consequently, domestic auto sales have been decreasing, and foreign auto sales have been increasing." Using only the information in this quotation and assuming everything else constant, which of the following best describes this statement?
  - (A) A shift in the demand curves for both domestic and foreign automobiles
  - (B) A movement along the demand curves for both foreign and domestic automobiles
  - (C) A movement along the demand curve for domestic autos, and a shift in the demand curve for foreign autos
  - (D) A shift in the demand curve for domestic autos, and a movement along the demand curve for foreign autos

Such a shift indicates that at each of the possible prices shown, buyers are now willing to buy a (*smaller / larger*) quantity; and at each of the possible quantities shown, buyers are willing to offer a (*lower / higher*) maximum price. The cause of this shift in the demand curve was a(n) (*increase / decrease*) in people's tastes and preferences for Greebes.

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  - (C) The quotation is incorrect: An increase in price causes a decrease in the *quantity demanded*, not a decrease in *demand*.
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  - (A) A shift in the demand curves for both domestic and foreign automobiles
  - (B) A movement along the demand curves for both foreign and domestic automobiles
  - (C) A movement along the demand curve for domestic autos, and a shift in the demand curve for foreign autos
  - (D) A shift in the demand curve for domestic autos, and a movement along the demand curve for foreign autos

## Reasons for Changes in Demand

### Part A

Read the eight newspaper headlines in Figure 4.2, and use the table to record the impact, if any, of each event on the demand for beef. Use the first column to the right of the headline to show whether the event causes a change in demand. Use the next column to record whether the change is an increase or a decrease in demand. In the third column, decide whether the demand curve shifts left or right. Finally, write the letter for the new demand curve. Use Figure 4.1 to help you. **Always start at curve B**, and move only one curve at a time. One headline implies that the demand for beef does not change.



Figure 4.1

### Beef Consumption in May

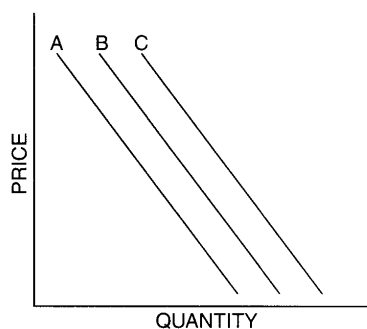


Figure 4.2

Headline	Demand Shift? (Y / N)	If Demand Shifts, Inc / Dec	Curve Shifts Left / Right	New Curve
1. Price of Beef to Rise in June				
2. Millions of Immigrants Swell U.S. Population				
3. Pork Prices Drop				
4. Surgeon General Warns That Eating Beef Is Hazardous to Health				
5. Beef Prices Fall; Consumers Buy More				
6. Real Income for U.S. Drops for Third Month				
7. Charcoal Shortage Threatens Memorial Day Cookouts				
8. Nationwide Fad: The Disco-Burger				

Based on an activity from *Master Curriculum Guide in Economics: Teaching Strategies for High School Economics Courses* (New York: National Council on Economic Education, 1985), p. 68.



Part B

Categorize each change in demand in Part A according to the reason why demand changed. A given demand curve assumes that consumer expectations, consumer tastes and preferences, the number of consumers in the market, the income of consumers, and the prices of substitutes and complements are unchanged. In the table below, place an X next to the reason that the event described in the headline caused a change in demand. One headline will have no answer because it is a change in quantity demanded.

Figure 4.3


↓ Reason	Headline Number →							
	1	2	3	4	5	6	7	8
A change in consumer expectations								
A change in consumer tastes								
A change in the number of consumers in the market								
A change in income								
A change in the price of a substitute good								
A change in the price of a complementary good								

## Supply Curves, Movements Along Supply Curves and Shifts in Supply Curves


In this activity and those that follow, we will assume that the long-run supply curve of Greebes is typically upward sloping.

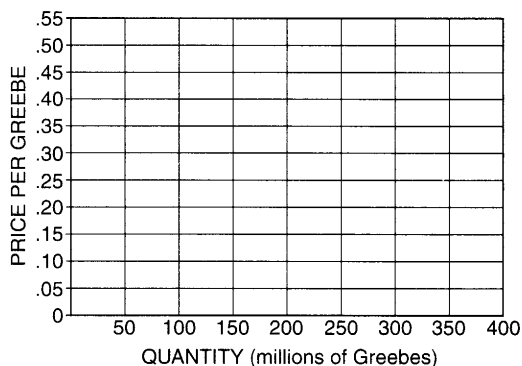
### Part A

Study the data in Figure 5.1 and plot the supply of Greebes on the axes in Figure 5.2. Label the supply curve S and answer the questions that follow. Write the correct answer on the answer blank, or underline the correct answer in parentheses.

 Figure 5.1  
Supply of Greebes

Price (\$ per Greebe)	Quantity Supplied (millions of Greebes)
\$.15	100
.20	150
.25	200
.30	250
.35	300

 Figure 5.2  
Supply of Greebes



- The data for supply curve S indicate that at a price of \$0.25 per Greebe, suppliers would be willing to offer \_\_\_\_\_ million Greebes. Other things constant, if the price of Greebes increased to \$0.30 per Greebe, suppliers would be willing to offer \_\_\_\_\_ million Greebes. Such a change would be an increase in (*supply / quantity supplied*).

Adapted from Phillip Saunders, *Introduction to Microeconomics: Student Workbook*, 18th ed. (Bloomington, Ind., 1998).  
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Other things constant, if the price of Greebes decreased to \$0.20 per Greebe, suppliers would be willing to offer \_\_\_\_\_ million Greebes. Such a change would be called a decrease in (supply / quantity supplied).

- Now, let's suppose that there is a dramatic change in the price of several of the raw materials used in making Greebes. This change in the *ceteris paribus* conditions underlying the original supply of Greebes will result in a new set of data, such as that shown in Figure 5.3. Study the data, and plot this supply of Greebes on the axes in Figure 5.2. Label the new supply curve  $S_1$  and answer the questions that follow.



Figure 5.3  
New Supply of Greebes

Price (\$ per Greebe)	Quantity Supplied (millions of Greebes)
\$.20	50
.25	100
.30	150
.35	200
.40	250

- Comparing the new supply curve ( $S_1$ ) with the original supply curve ( $S$ ), we can say that a change in the supply of Greebes results in a shift of the supply curve to the (left / right). Such a shift indicates that at each of the possible prices shown, suppliers are now willing to offer a (smaller / larger) quantity; and at each of the possible quantities shown, suppliers are willing to accept a (higher / lower) minimum price. The cause of this supply curve shift was a(n) (increase / decrease) in prices of several of the raw materials used in making Greebes.
- Now, let's suppose that there is a dramatic change in the price of Silopanna, a resource used in the production of Greebes. This change in the *ceteris paribus* conditions underlying the original supply of Greebes will result in a new set of data shown in Figure 5.4. Study the data, and plot this supply of Greebes on the axes in Figure 5.2. Label the new supply curve  $S_2$  and answer the questions that follow.



Figure 5.4  
New Supply of Greebes

Price (\$ per Greebe)	Quantity Supplied (millions of Greebes)
\$.10	150
.15	200
.20	250
.25	300
.30	350

Comparing the new supply curve ( $S_2$ ) with the original supply curve ( $S$ ), we can say that the change in the supply of Greebes results in a shift of the supply curve to the (left / right). Such a shift indi-

cates that at each of the possible prices shown, suppliers are now willing to offer a (*smaller / larger*) quantity; and at each of the possible quantities shown, suppliers are willing to accept a (*lower / higher*) minimum price. The cause of this supply curve shift is a(n) (*increase / decrease*) in the price of Silopanna, a resource used in the production of Greebes.

### Part B

Now, to check your understanding, underline the answer you think is the one best alternative in each of the following multiple-choice questions.

5. Other things constant, which of the following would *not* cause a change in the long-run supply of beef?
  - (A) A decrease in the price of beef
  - (B) A decrease in the price of cattle feed
  - (C) An increase in the price of cattle feed
  - (D) An increase in the cost of transporting cattle to market
6. "Falling oil prices have caused a sharp decrease in the supply of oil." Speaking precisely, and using terms as they are defined by economists, choose the statement that best describes this quotation.
  - (A) The quotation is correct: A decrease in price always causes a decrease in *supply*.
  - (B) The quotation is incorrect: A decrease in price always causes an increase in *supply*, not a decrease in *supply*.
  - (C) The quotation is incorrect: A decrease in price causes an increase in the *quantity supplied*, not a decrease in *supply*.
  - (D) The quotation is incorrect: A decrease in price causes a decrease in the *quantity supplied*, not a decrease in *supply*.
7. A multiyear drought in Florida has dried the land so that rampant wildfires have destroyed many orange groves. Florida oranges supply much of the nation's orange juice. Which statement below is correct?
  - (A) The price of orange juice will rise because of a movement up the supply curve.
  - (B) The price of orange juice will rise because the supply curve will shift to the left.
  - (C) The price of orange juice will fall because of a movement down the supply curve.
  - (D) The price of orange juice will fall because the supply curve will shift to the right.
8. A popular movie star wears a certain style of sunglasses. If her fans want to copy her look,
  - (A) the price of the movie star's brand of sunglasses will rise because of a movement up the supply curve.
  - (B) the price of the movie star's brand of sunglasses will rise because the supply curve will shift to the left.
  - (C) the price of the movie star's brand of sunglasses will fall because of a movement down the supply curve.
  - (D) the price of the movie star's brand of sunglasses will fall because the supply curve will shift to the right.

## Reasons for Changes in Supply

### Part A

Read the eight newspaper headlines in Figure 6.2, and record the impact, if any, of each event on the supply of cars. Use the first column to the right of the headline to show whether the event will cause a change in supply. Use the next column to record whether the change is an increase or a decrease in supply. In the third column, decide whether the supply curve shifts left or right. Finally, write the letter for the new supply curve. Use Figure 6.1 to help you. **Always start at curve B**, and move only one curve at a time. Two headlines imply that the supply of cars does not change.



Figure 6.1

Supply of Foreign and Domestic Cars

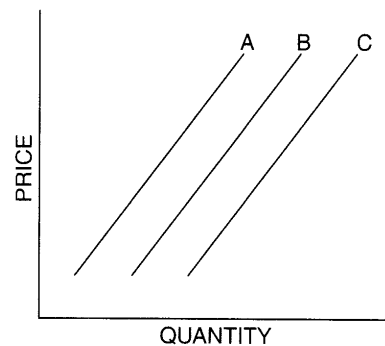


Figure 6.2

Headline	Supply Shift? (Y / N)	If Supply Shifts, Inc / Dec	Curve Shifts Left / Right	New Curve
1. Auto Workers' Union Agrees to Wage Cuts				
2. New Robot Technology Increases Efficiency				
3. Nationwide Auto Strike Began at Midnight				
4. New Import Quotas Reduce Foreign Car Imports				
5. Cost of Steel Rises				
6. Auto Producer Goes Bankrupt; Closes Operation				
7. Buyers Reject New Models				
8. National Income Rises 2%				

From *Master Curriculum Guide in Economics: Teaching Strategies for High School Economics Courses* (New York: National Council on Economic Education, 1985), p. 69

### Part B

Categorize each change in supply in Part A according to the reason why supply changed. In Figure 6.3, place an X next to the reason that the event described in the headline caused a change in supply. In some cases, more than one headline could be matched to a reason. Two headlines do not indicate a shift in supply.



Figure 6.3

↓ Reason	Headline Number →							
	1	2	3	4	5	6	7	8
A change in costs of inputs to production process								
A change in technology								
A change in the number of producers in the market								
Government policies								