

Demand Curves, Movements along Demand Curves, and Shifts in Demand Curves

Part A: A Change in Demand versus a Change in Quantity Demanded

Student Alert: The distinction between a “change in demand” and a “change in quantity demanded” is very important!

Table 1-4.1 shows the market demand for a hypothetical product: Greebes. Study the data and plot the demand for Greebes on the graph in Figure 1-4.1. Label the demand curve D, and answer the questions that follow.

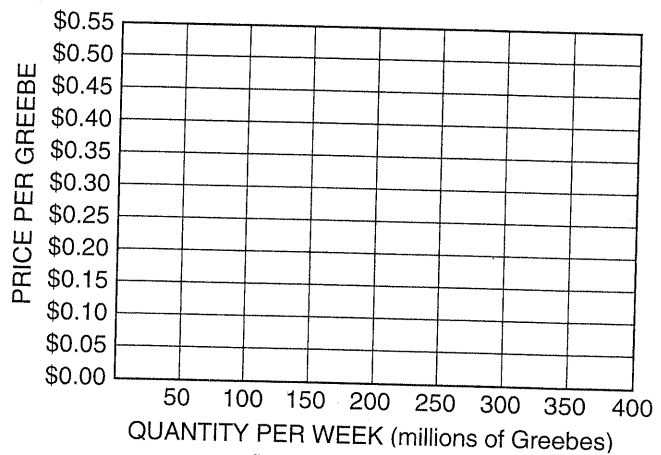


Table 1-4.1
Demand for Greebes

Price (per Greebe)	Quantity demanded per week (millions of Greebes)
\$0.10	350
\$0.15	300
\$0.20	250
\$0.25	200
\$0.30	150
\$0.35	100
\$0.40	50
\$0.45	0



Figure 1-4.1
Demand for Greebes



- The data for demand curve D indicate that at a price of \$0.30 per Greebe, buyers would be willing to buy _____ million Greebes. All other things held 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*). All other things held 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*).

Now, let's suppose there is a 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 Table 1-4.2. Study these new data, and add the new demand curve for Greebes to the graph in Figure 1-4.1. Label the new demand curve D_1 and answer the questions that follow.



Table 1-4.2

New Demand for Greebes

Price (per Greebe)	Quantity demanded per week (millions of Greebes)
\$0.05	300
\$0.10	250
\$0.15	200
\$0.20	150
\$0.25	100
\$0.30	50

2. 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.

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 Table 1-4.3. Study these new data, and add the new demand curve for Greebes to the graph in Figure 1-4.1. Label the new demand curve D_2 and answer the questions that follow.



Table 1-4.3

New Demand for Greebes

Price (per Greebe)	Quantity demanded per week (millions of Greebes)
\$0.20	350
\$0.25	300
\$0.30	250
\$0.35	200
\$0.40	150
\$0.45	100
\$0.50	50

3. 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: Do You Get It?

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

4. All other things held constant, which of the following would *not* cause a change in the demand (shift in the demand curve) for motorcycles?
 - (A) A decrease in consumer incomes
 - (B) A decrease in the price of motorcycles
 - (C) An increase in the price of bicycles
 - (D) An increase in people's tastes and preferences for motorcycles
5. "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 causes a decrease in demand.
 - (B) The quotation is incorrect: an increase in price 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.
6. "As the price of domestic automobiles has risen, 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 remains 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

Reasons for Changes in Demand

Part A: Does the Demand Curve Shift?

Read the eight newspaper headlines in Table 1-5.1, and use the table to record the impact of each event on the demand for U.S.-made autos. In the second column, indicate whether the event in the headline will cause consumers to buy more or less U.S.-made autos. Use the third column to indicate whether there is a change in demand (ΔD) or a change in quantity demanded (ΔQd) for U.S.-made autos. In the third column, decide whether the demand curve shifts to the right or left or does not shift. Finally, indicate the letter for the new demand curve. Use Figure 1-5.1 to help you. **Always start at curve B**, and move only one curve at a time.



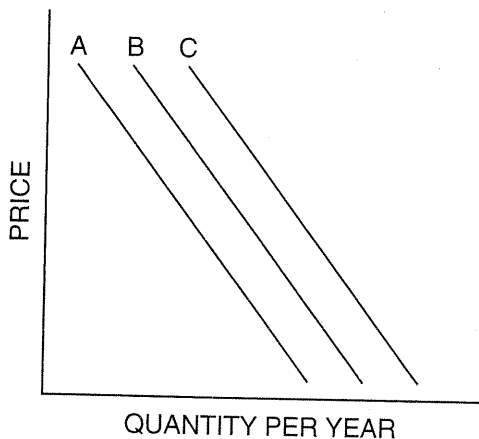
Table 1-5.1

Impact of Events on Demand for U.S.-Made Autos

Headline	Will consumers buy more or less U.S. autos?	Is there a change in demand (ΔD) or a change in quantity demanded (ΔQd)?	Does the demand curve for U.S. autos shift to the right or left or not shift?	What is the new demand curve for U.S. autos?
1. Consumers' Income Drops	<i>More / Less</i>	$\Delta D / \Delta Qd$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
2. Millions of Immigrants Enter the U.S.	<i>More / Less</i>	$\Delta D / \Delta Qd$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
3. Price of Foreign Autos Drop	<i>More / Less</i>	$\Delta D / \Delta Qd$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
4. Major Cities Add Inexpensive Bus Lines	<i>More / Less</i>	$\Delta D / \Delta Qd$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
5. Price of U.S. Autos Rises	<i>More / Less</i>	$\Delta D / \Delta Qd$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
6. Price of U.S. Autos Expected to Rise Soon	<i>More / Less</i>	$\Delta D / Qd$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
7. Families Look Forward to Summer Vacations	<i>More / Less</i>	$\Delta D / \Delta Qd$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
8. U.S. Auto Firms Launch Effective Ad Campaigns	<i>More / Less</i>	$\Delta D / \Delta Qd$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>



Figure 1-5.1
Demand for U.S.-Made Autos



Part B: Why Does the Demand Curve Shift?

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, the number of consumers in the market, the income of consumers, and the prices of substitutes and complements are unchanged. In Table 1-5.2, 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 will result in a change in quantity demanded rather than a change in demand.



Table 1-5.2
Reasons for a Change in Demand for U.S.-Made Autos

Reason	Headline number							
	1	2	3	4	5	6	7	8
9. A change in consumer expectations								
10. A change in consumer tastes								
11. A change in the number of consumer in the market								
12. A change in income								
13. A change in the price of a substitute good								
14. A change in the price of a complementary good								

Supply Curves, Movements along Supply Curves, and Shifts in Supply Curves

In this activity, we will assume that the supply curve of Greebes is upward sloping.

Part A: A Change in Supply versus a Change in Quantity Supplied

Student Alert: The distinction between a “change in supply” and a “change in quantity supplied” is very important!

Study the data in Table 1-6.1 and plot the supply of Greebes on the graph in Figure 1-6.1. Label the supply curve S and answer the questions that follow.

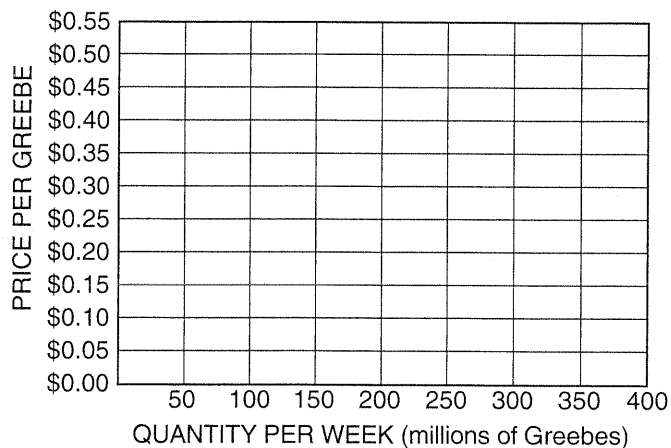


Table 1-6.1
Supply of Greebes

Price (per Greebe)	Quantity supplied per week (millions of Greebes)
\$0.05	0
\$0.10	50
\$0.15	100
\$0.20	150
\$0.25	200
\$0.30	250
\$0.35	300
\$0.40	350



Figure 1-6.1
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. All other things held 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*). All other things held 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 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 Table 1-6.2. Study the data, and plot this supply of Greebes on the graph in Figure 1-6.1. Label the new supply curve S_1 and answer the questions that follow.



Table 1-6.2

New Supply of Greebes

Price (per Greebe)	Quantity supplied per week (millions of Greebes)
\$0.15	0
\$0.20	50
\$0.25	100
\$0.30	150
\$0.35	200
\$0.40	250

2. Comparing the new supply curve (S_1) 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 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 Table 1-6.3. Study the data, and plot this supply of Greebes on the graph in Figure 1-6.1. Label the new supply curve S_2 and answer the questions that follow.



Table 1-6.3

New Supply of Greebes

Price (per Greebe)	Quantity supplied per week (millions of Greebes)
\$0.10	150
\$0.15	200
\$0.20	250
\$0.25	300
\$0.30	350
\$0.35	400

3. 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 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 (*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: Do You Get It?

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

4. All other things held constant, which of the following would *not* cause a change in the 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

5. "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 causes a decrease in supply.
 - (B) The quotation is incorrect: a decrease in price 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.
6. You overhear a fellow student say, "Economic markets are confusing. If supply increases, then price decreases; but if price decreases, then supply also will decrease. If supply falls, price will rise; but if price rises, supply also will rise." Dispel your friend's obvious confusion (in no more than one short paragraph) below.

Reasons for Changes in Supply

Part A: Does the Supply Curve Shift?

Read the eight newspaper headlines in Table 1-7.1, and use the table to record the impact of each event on the supply of cars from U.S. auto producers. In the second column, indicate whether the event in the headline will cause American auto producers to provide more or less cars. Use the third column to indicate whether there is a change in supply (ΔS) or a change in quantity supplied (ΔQ_s) of cars. In the third column, decide whether the supply curve shifts to the right or left or does not shift. Finally, indicate the letter for the new supply curve. Use Figure 1-7.1 to help you. **Always start at curve B**, and move only one curve at a time.



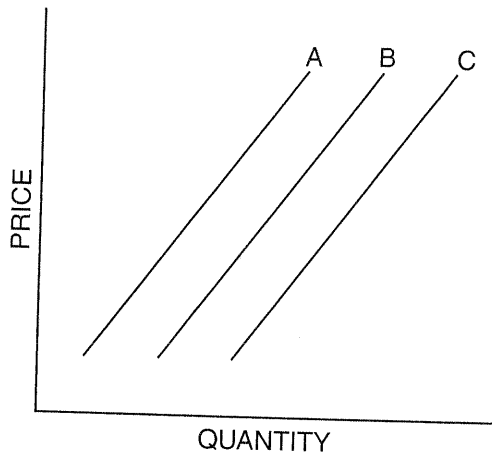
Table 1-7.1

Impact of Events on Supply of U.S.-Made Autos

Headline	Should U.S. auto firms produce more or less?	Is there a change in supply (ΔS) or a change in quantity supplied (ΔQ_s)?	Does the supply curve of cars shift to the right or left or not shift?	What is the new supply curve for cars?
1. Auto Workers' Union Agrees to Wage Cuts	<i>More / Less</i>	$\Delta S / \Delta Q_s$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
2. New Robot Technology Increases Efficiency	<i>More / Less</i>	$\Delta S / \Delta Q_s$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
3. Price of U.S. Cars Increases	<i>More / Less</i>	$\Delta S / \Delta Q_s$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
4. Nationwide Auto Workers Strike Begins	<i>More / Less</i>	$\Delta S / \Delta Q_s$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
5. Cost of Steel Decreases	<i>More / Less</i>	$\Delta S / \Delta Q_s$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
6. Major Auto Producer Goes Out of Business	<i>More / Less</i>	$\Delta S / \Delta Q_s$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
7. Buyers Reject New Car Models	<i>More / Less</i>	$\Delta S / \Delta Q_s$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>
8. Government Gives Car Producers a Subsidy	<i>More / Less</i>	$\Delta S / \Delta Q_s$	<i>Right / Left / No Shift</i>	<i>A / B / C</i>



Figure 1-7.1
Supply of U.S.-Made Cars



Part B: Why Does the Supply Curve Shift?

Categorize each change in supply in Part A according to the reason why supply changed. In Table 1-7.2, place an X next to the reason that the headline indicated a change in supply. In some cases, more than one headline could be matched to a reason. It is possible a headline does not indicate a shift in supply because it will result in a change in quantity supplied rather than a change in supply.



Table 1-7.2
Impact of Events on Supply of U.S.-Made Autos

Reason	Headline number							
	1	2	3	4	5	6	7	8
9. A change in costs of inputs to production process								
10. A change in technology								
11. A change in the number of producers in the market								
12. Government policies								

Equilibrium Price and Equilibrium Quantity

Table 1-8.1 below shows the demand for Greebes and the supply of Greebes. Plot these data on the axes in Figure 1-8.1. Label the demand curve D and label the supply curve S. Then answer the questions that follow.

Student Alert: A “change in demand” or a “change in supply” results in a change in price, while a “change in quantity demanded” or a “change in quantity supplied” is the result of a change in price.



Table 1-8.1

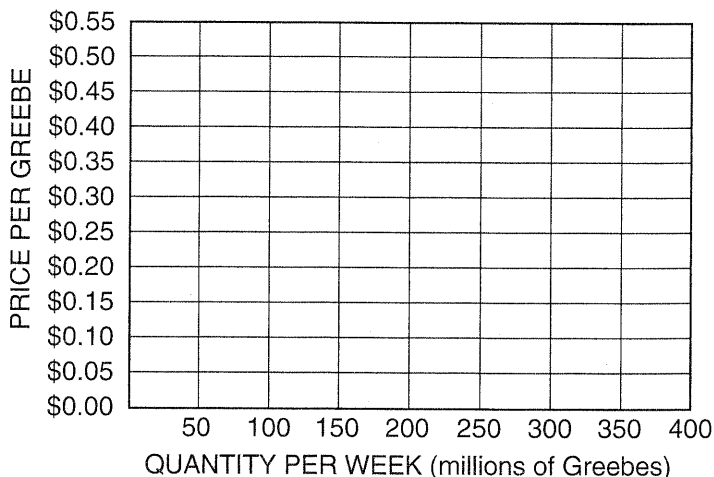
Demand for and Supply of Greebes

Price (per Greebe)	Quantity demanded (millions of Greebes)	Quantity supplied (millions of Greebes)
\$0.05	400	0
\$0.10	350	50
\$0.15	300	100
\$0.20	250	150
\$0.25	200	200
\$0.30	150	250
\$0.35	100	300
\$0.40	50	350
\$0.45	0	400



Figure 1-8.1

Demand for and Supply of Greebes



1. Under these conditions, competitive market forces would tend to establish an equilibrium price of _____ per Greebe and an equilibrium quantity of _____ million Greebes.

2. If the price currently prevailing in the market is \$0.30 per Greebe, buyers would want to buy _____ million Greebes and sellers would want to sell _____ million Greebes. Under these conditions, there would be a (*shortage / surplus*) of _____ million Greebes. Competitive market forces would cause the price to (*increase / decrease*) to a price of _____ per Greebe. At this new price, buyers would now want to buy _____ million Greebes, and sellers now want to sell _____ million Greebes. Because of this change in (*price / underlying conditions*), the (*demand / quantity demanded*) (*increased / decreased*) by _____ million Greebes, and the (*supply / quantity supplied*) (*increased / decreased*) by _____ million Greebes.

3. If the price currently prevailing in the market is \$0.20 per Greebe, buyers would want to buy _____ million Greebes, and sellers would want to sell _____ million Greebes. Under these conditions, there would be a (*shortage / surplus*) of _____ million Greebes. Competitive market forces would cause the price to (*increase / decrease*) to a price of _____ per Greebe. At this new price, buyers would now want to buy _____ million Greebes, and sellers now want to sell _____ million Greebes. Because of this change in (*price / underlying conditions*), the (*demand / quantity demanded*) (*increased / decreased*) by _____ million Greebes, and the (*supply / quantity supplied*) (*increased / decreased*) by _____ million Greebes.

4. At equilibrium, is each of the following true or false? Explain.
 - (A) The quantity demanded is equal to the quantity supplied.

 - (B) Demand equals supply.

5. Now, suppose a mysterious blight causes the supply schedule for Greebes to change as shown in Table 1-8.2:



Table 1-8.2

New Supply of Greebes

Price (per Greebe)	Quantity supplied (millions of Greebes)
\$0.15	0
\$0.20	50
\$0.25	100
\$0.30	150
\$0.35	200

Plot the new supply schedule on the axes in Figure 1-8.1 and label it S_1 . Label the new equilibrium E_1 . Under these conditions, competitive market forces would establish an equilibrium price of _____ per Greebe and an equilibrium quantity of _____ million Greebes.

Compared with the equilibrium price in Question 1, we say that because of this change in (*price / underlying conditions*), the (*supply / quantity supplied*) changed; and both the equilibrium price and the equilibrium quantity changed. The equilibrium price (*increased / decreased*), and the equilibrium quantity (*increased / decreased*).

Compared with the consumer and producer surpluses in Question 4, consumer surplus has (*increased / decreased*), and producer surplus has (*increased / decreased*).

6. Now, with the supply schedule at S_1 , suppose further that a sharp drop in people's incomes as the result of a prolonged recession causes the demand schedule to change as shown in Table 1-8.3:



Table 1-8.3

New Demand for Greebes

Price (per Greebe)	Quantity demanded (millions of Greebes)
\$0.15	200
\$0.20	150
\$0.25	100
\$0.30	50

Plot the new demand schedule on the axes in Figure 1-8.1 and label it D_1 . Label the new equilibrium E_2 . Under these conditions, with the supply schedule at S_1 , competitive market forces would establish an equilibrium price of _____ per Greebe and an equilibrium quantity of _____ million Greebes. Compared with the equilibrium price in Question 5, because of this change in (*price / underlying conditions*), the (*demand / quantity demanded*) changed. The equilibrium price (*increased / decreased*), and the equilibrium quantity (*increased / decreased*).

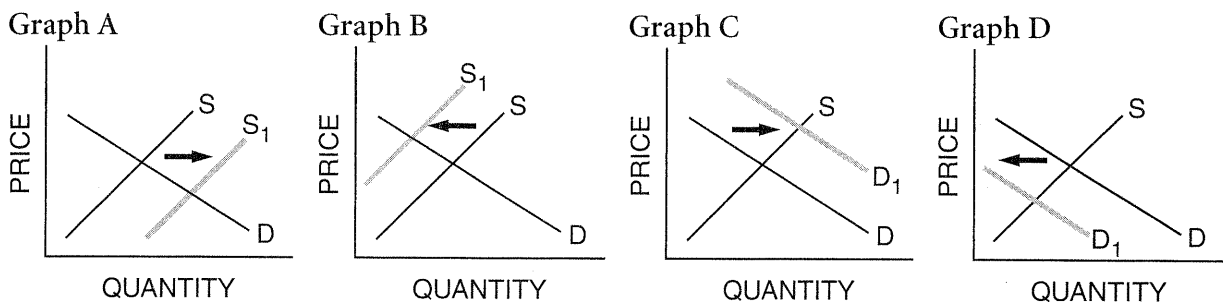
Shifts in Supply and Demand

Part A: The Market for Jelly Beans

Fill in the blanks with the letter of the graph that illustrates each situation. You may use a graph more than once.



Figure 1-9.1
The Supply and Demand for Jelly Beans



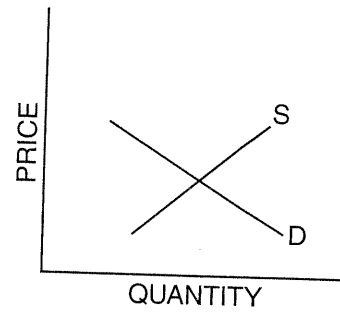
1. The price of sugar, a key ingredient in producing jelly beans, increases. _____
2. The price of bubble gum, a close substitute for jelly beans, increases. _____
3. A machine is invented that makes jelly beans at a lower cost. _____
4. The government places a tax on foreign jelly beans, which have a considerable share of the market. _____
5. The price of soda, a complementary good for jelly beans, increases. _____
6. Widespread prosperity allows people to buy more jelly beans. _____

Part B: Apples, Pears, and Pies

Connecticut ships large amounts of apples to all parts of the United States by rail. Circle the words that show the effects on price and quantity for each situation, and complete the graphs below, showing how a hurricane that destroys apples before they are picked in Connecticut might affect the price and quantity of each commodity. Then provide your reasoning.

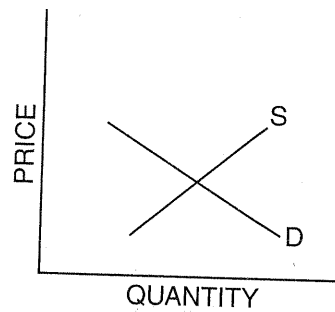
7. Apples in Boston

Price: *Rises / Unchanged / Falls*
 Quantity: *Rises / Unchanged / Falls*
 Reason:



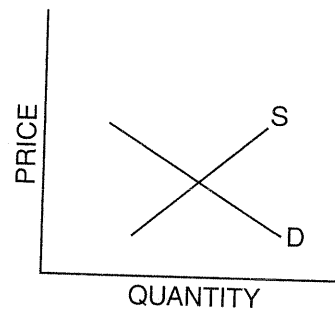
8. Land devoted to apple orchards in the state of Washington

Price: *Rises / Unchanged / Falls*
 Quantity: *Rises / Unchanged / Falls*
 Reason:



9. Apples grown in the state of Washington

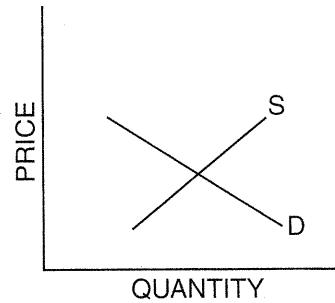
Price: *Rises / Unchanged / Falls*
 Quantity: *Rises / Unchanged / Falls*
 Reason:



10. Pears

Price: *Rises / Unchanged / Falls*Quantity: *Rises / Unchanged / Falls*

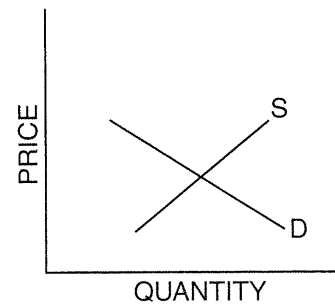
Reason:



11. Apple pies

Price: *Rises / Unchanged / Falls*Quantity: *Rises / Unchanged / Falls*

Reason:



Unit 2, Lesson 14

Activity 1

What Will Happen If?

Directions: Read the following descriptions and decide if there will be surplus or a shortage of the product in each situation. Check the correct answer.

- A. A very popular singer is coming to a town to perform a concert in a concert hall that seats 10,000 people. The ticket price for the concert is \$30.00 per person. There are 30,000 fans in the area who are willing to pay \$80.00 per seat to listen to the concert. What will happen?

Shortage of seats _____

Surplus of seats _____

- B. A very popular singer is coming to town to perform a concert in a concert hall that seats 10,000 people. The ticket price for the concert is \$30,000 per person. There are 3,000 fans in the area who are willing to pay \$80.00 to listen to the concert. What will happen?

Shortage of seats _____

Surplus of seats _____

- C. The Ford Motor Company has designed a new car that resembles a Ford model that was popular 40 years ago. Ford plans to produce 100,000 of the new-old cars each year. Ford will price these cars at \$24,000 and require dealers not to change that price. There are 200,000 people per year who wish to buy the car. What will happen?

Shortage of seats _____

Surplus of seats _____

- D. The Fish and Wildlife Department in a West Coast state decides to allow people to dig for razor clams on the ocean beaches three days each year. There is a small charge (\$10) for a license to dig these clams. Millions of people enjoy eating razor clams. During most of the year they buy razor clams in fishmarkets for \$20 to \$30 a dozen. What will happen on the days when people can dig razor clams for themselves?

Shortage of seats _____

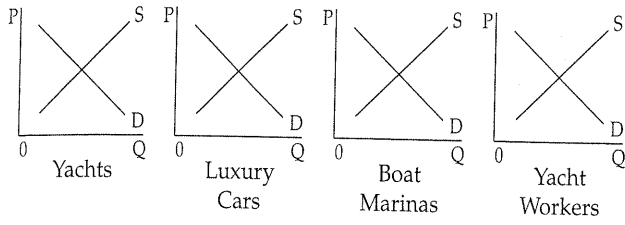
Surplus of seats _____

- E. Schools ask students to take good care of their textbooks during the year and to return them on the last day of school. Often students turn back the books in poor condition. In an effort to encourage students to take better care of the books, the School Board offers to pay students \$2,000 for any textbook returned in good condition. What will happen?

Shortage of seats _____

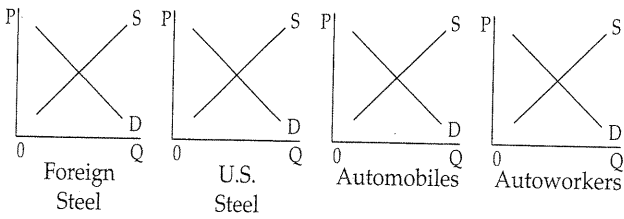
Surplus of seats _____

5. Assume that there is a new federal law that places a 200 percent excise tax on the sale of yachts.



Demand:	↑ - ↓	↑ - ↓	↑ - ↓	↑ - ↓
Supply:	↑ - ↓	↑ - ↓	↑ - ↓	↑ - ↓
Equilibrium price:	↑ - ↓	↑ - ↓	↑ - ↓	↑ - ↓
Equilibrium quantity:	↑ - ↓	↑ - ↓	↑ - ↓	↑ - ↓

6. Assume that the government imposes a tariff or tax on foreign steel to save the jobs of American steelworkers. Steel is a major component of automobiles.



Demand:	↑ - ↓	↑ - ↓	↑ - ↓	↑ - ↓
Supply:	↑ - ↓	↑ - ↓	↑ - ↓	↑ - ↓
Equilibrium price:	↑ - ↓	↑ - ↓	↑ - ↓	↑ - ↓
Equilibrium quantity:	↑ - ↓	↑ - ↓	↑ - ↓	↑ - ↓

Unit 2, Lesson 13

Activity 2

How Markets Allocate Resources

A market price, which is determined by supply and demand, is the mechanism that organizes an economy. These prices emerge from voluntary transactions among buyers and sellers. The order of a market economy is the result of millions of people seeking to further their own interests.

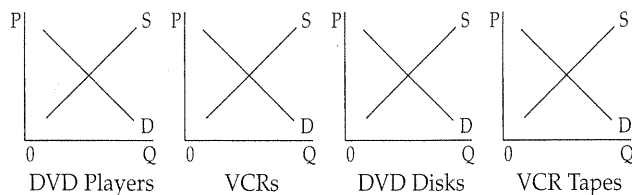
This means a change in the underlying conditions of one good not only changes the price of that good but the prices of thousands of other goods and services and the wages of people who produce them. Because of the prices, market economies allocate resources in the best interest of consumers.

Governments sometimes interfere in this process through regulations and price controls. The government policy usually is meant to solve an immediate "crisis," but the policy can cause unintended consequences that no one anticipated.

The following questions refer to a group of related markets during a long period of time. Assume that the markets are perfectly competitive and that the supply-and-demand model is completely applicable. The diagrams show the supply and demand in each market *before* the assumed change occurs. Trace through the effects of the assumed change, *other things constant*. Work your way from left to right. Shift only one curve in each market.

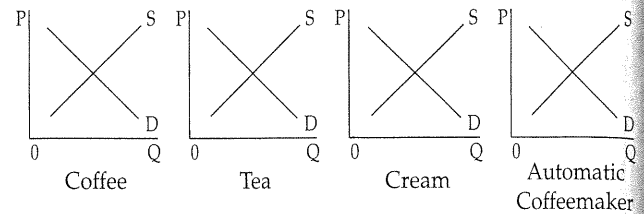
For each market, draw whatever new supply or demand curve is needed, labeling each new curve S_1 or D_1 . Then circle the correct symbol under each diagram (\uparrow for increase, \cdot for unchanged, and \downarrow for decrease). Remember to shift only one curve in each market.

1. Improvements in technology reduce the cost of producing DVD players.



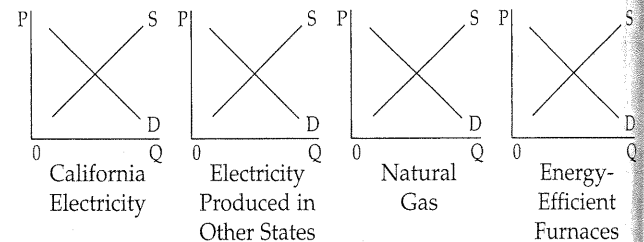
Demand:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow
Supply:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow
Equilibrium price:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow
Equilibrium quantity:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow

2. Assume that a heavy frost destroys half the world's coffee crop, and that people use more cream in their coffee than they do in tea.



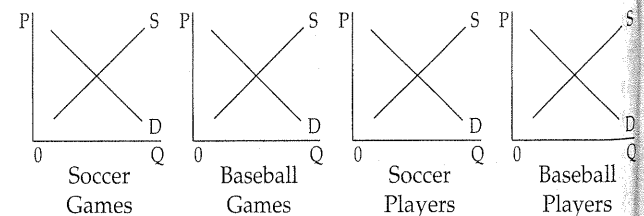
Demand:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow
Supply:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow
Equilibrium price:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow
Equilibrium quantity:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow

3. Assume that environmental regulations and people's concerns about building power plants near their homes reduce the number of power plants built in California.



Demand:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow
Supply:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow
Equilibrium price:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow
Equilibrium quantity:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow

4. Assume that soccer becomes the national pastime, and attendance at professional soccer games exceeds attendance at professional baseball games.



Demand:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow
Supply:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow
Equilibrium price:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow
Equilibrium quantity:	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow	\uparrow - \downarrow

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