

- d. Suppose income increases and consumers are willing and able to buy 100 more units at each price. Construct the new demand curve and label it D_1 . What are the new equilibrium price and quantity?
- e. Suppose input prices fall and suppliers are willing to offer for sale 200 more units at each price. Construct the new supply curve, and label it S_1 . Suppose instead that when input prices fall, supply price falls by \$20 for each level of output. Verify that the new supply curve is exactly the same in either case. What are the new equilibrium price and output when the supply and demand curves are D_1 and S_1 ?

APPLIED PROBLEMS

1. Suppose you are the manager of a California winery. How would you expect the following events to affect the price you receive for a bottle of wine?
 - a. The price of comparable French wines decreases.
 - b. One hundred new wineries open in California.
 - c. The unemployment rate in the United States decreases.
 - d. The price of cheese increases.
 - e. The price of a glass bottle increases significantly due to new government antishatter regulations.
 - f. Researchers discover a new wine-making technology that reduces production costs.
 - g. The price of wine vinegar, which is made from the leftover grape mash, increases.
 - h. The average age of consumers increases, and older people drink less wine.
2. Citrus Speculation and Forecasting, Inc., has been hired by a private consortium of orange growers to predict what will happen to the price and output of oranges under the conditions below. What are your predictions? For each part, sketch a graph showing the appropriate demand and supply analysis.
 - a. A major freeze destroys a large number of the orange trees in Florida.
 - b. The scientists in the agricultural extension service of the University of Florida discover a way to double the number of oranges produced by each orange tree.
 - c. The American Medical Association announces that drinking orange juice can reduce the risk of heart attack.
 - d. The price of grapefruit falls.
3. Evaluate the following statements using graphical analysis. Provide a brief narrative explanation of your graph to support your evaluation. Make sure the axes and curves in your graphs are properly labeled.
 - a. "When demand for home heating oil increases, a shortage of heating oil will occur."
 - b. "A decrease in the supply of random access memory (RAM) chips for personal computers causes a shortage of RAM chips."
4. Several economics faculty members were standing in line in the student union cafeteria for lunch. One was heard to say, "I sure wish the union would raise their food prices." The others agreed. What in the world would motivate such a wish?
5. Rising jet fuel prices recently led most major U.S. airlines to raise fares by approximately 15 percent. Explain how this substantial increase in airfares would affect the following:
 - a. The demand for air travel.
 - b. The demand for hotels.

