

## PROBLEM

1. A survey indicated that chocolate is Americans' favorite ice-cream flavor. For each of the following, indicate the possible effects on demand, supply, or both as well as equilibrium price and quantity of chocolate ice cream.
  - a. A severe drought in the Midwest causes dairy farmers to reduce the number of milk-producing cattle in their herds by a third. These dairy farmers supply cream that is used to manufacture chocolate ice cream.
  - b. A new report by the American Medical Association reveals that chocolate does, in fact, have significant health benefits.
  - c. The discovery of cheaper synthetic vanilla flavoring lowers the price of vanilla ice cream.
  - d. New technology for mixing and freezing ice cream lowers manufacturers' costs of producing chocolate ice cream.
2. In a supply and demand diagram, draw the shift of the demand curve for hamburgers in your hometown due to the following events. In each case, show the effect on equilibrium price and quantity.
  - a. The price of tacos increases.
  - b. All hamburger sellers raise the price of their french fries.
  - c. Income falls in town. Assume that hamburgers are a normal good for most people.
  - d. Income falls in town. Assume that hamburgers are an inferior good for most people.
  - e. Hot dog stands cut the price of hot dogs.
3. The market for many goods changes in predictable ways according to the time of year, in response to events such as holidays, vacation times, seasonal changes in production, and so on. Using supply and demand, explain the change in price in each of the following cases. Note that supply and demand may shift simultaneously.
  - a. Lobster prices usually fall during the summer peak lobster harvest season, despite the fact that people like to eat lobster during the summer more than at any other time of year.
  - b. The price of a Christmas tree is lower after Christmas than before but fewer trees are sold.
  - c. The price of a round-trip ticket to Paris on Air France falls by more than \$200 after the end of school vacation in September. This happens despite the fact that generally worsening weather increases the cost of operating flights to Paris, and Air France therefore reduces the number of flights to Paris at any given price.
4. Show in a diagram the effect on the demand curve, the supply curve, the equilibrium price, and the equilibrium quantity of each of the following events.
  - a. The market for newspapers in your town
    - Case 1: The salaries of journalists go up.
    - Case 2: There is a big news event in your town, which is reported in the newspapers.
  - b. The market for St. Louis Rams cotton T-shirts
    - Case 1: The Rams win the Super Bowl.
    - Case 2: The price of cotton increases.
  - c. The market for bagels
    - Case 1: People realize how fattening bagels are.
    - Case 2: People have less time to make themselves a cooked breakfast.
  - d. The market for the Krugman and Wells economics textbook
    - Case 1: Your professor makes it required reading for all of his or her students.
    - Case 2: Printing costs for textbooks are lowered by the use of synthetic paper.
5. The U.S. Department of Agriculture reported that in 2004 each person in the United States consumed an average of 37 gallons of soft drinks (nondiet) at an average price of \$2 per gallon. Assume that, at a price of \$1.50 per gallon, each individual consumer would demand 50 gallons of soft drinks. The U.S. population in 2004 was 294 million. From this information about the individual demand schedule, calculate the market demand schedule for soft drinks for the prices of \$1.50 and \$2 per gallon.

Suppose that the supply schedule of Maine lobsters is as follows:

Price of lobster (per pound)	Quantity of lobster supplied (pounds)
\$25	800
20	700
15	600
10	500
5	400

Suppose that Maine lobsters can be sold only in the United States. The U.S. demand schedule for Maine lobsters is as follows:

Price of lobster (per pound)	Quantity of lobster demanded (pounds)
\$25	200
20	400
15	600
10	800
5	1,000

- a. Draw the demand curve and the supply curve for Maine lobsters. What are the equilibrium price and quantity of lobsters?