Equilibrium Price and Equilibrium Quantity

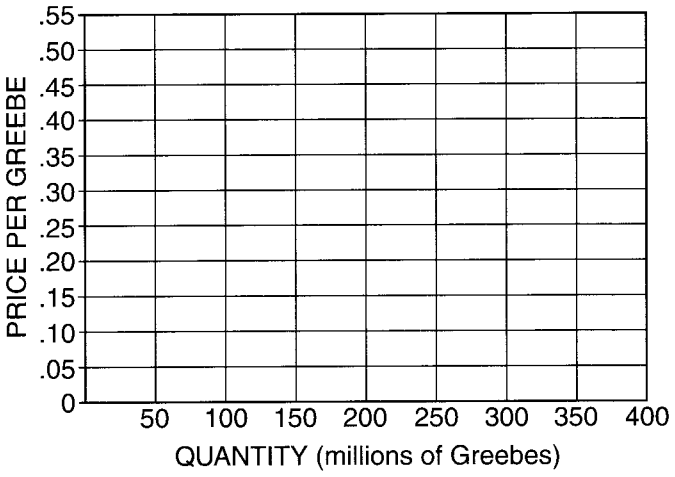
Part A

Figure 7.1 below shows the demand for Greebes and the supply of Greebes. Plot these data on the axes in Figure 7.2. Label the demand curve D and label the supply curve S. Then answer the questions that follow. Fill in the answer blanks, or underline the correct answer in parentheses.

Figure 7.1
Demand for and Supply of Greebes

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

Figure 7.2
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 tend to 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*),

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

the (*demand / quantity demanded*) changed by _____ million Greebes, and the (*supply / quantity supplied*) changed 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 tend to 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)* changed by _____ million Greebes, and the *(supply / quantity supplied)* changed by _____ million Greebes.

4. Now, suppose a mysterious blight causes the supply schedule for Greebes to change to the following:

Figure 7.3
New Supply of Greebes

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

Plot the new supply schedule on the axes in Figure 7.2 and label it S_1. Label the new equilibrium E_1. Under these conditions, competitive market forces would tend to 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)*.

5. 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 to the following:

Figure 7.4
New Demand for Greebes

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

Plot the new demand schedule on the axes in Figure 7.2 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 tend to establish an equilibrium price of _____ per Greebe and an equilibrium quantity of _____ million Greebes. Compared with the equilibrium price in Question 4, because of this change in *(price / underlying conditions)*, the *(demand / quantity demanded)* changed. The equilibrium price *(increased / decreased)*, and the equilibrium quantity *(increased / decreased)*.

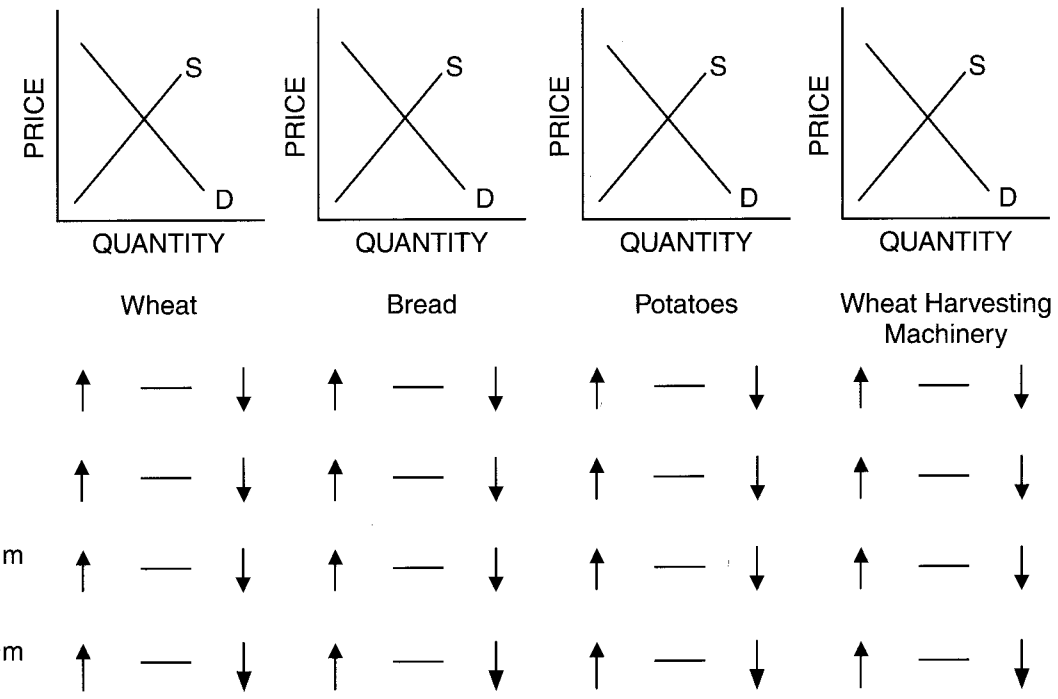
6. The movement from the first equilibrium price and quantity to the new equilibrium price and quantity is the result of a *(price / nonprice)* effect.

Part B

The following questions refer to a group of related markets in the United States during a given time period. Assume that the markets are perfectly competitive and that the supply and demand model is completely applicable. The figures 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 curves are needed, labeling each new curve S_1 or D_1. Then circle the correct symbol under each diagram (↑ for increase, — for unchanged, and ↓ for decrease). Remember to shift only one curve in each market.

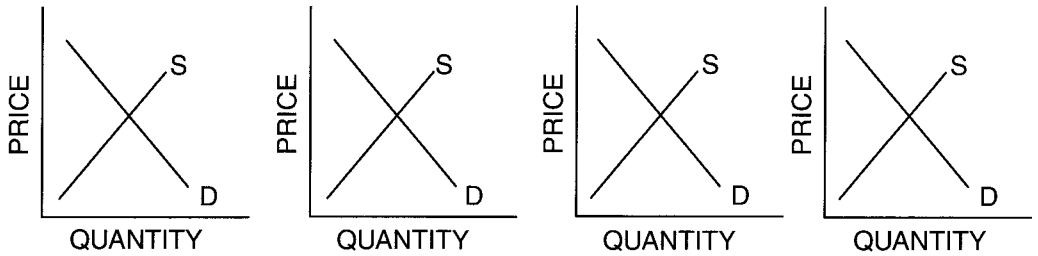
7. Assume that a new fertilizer dramatically increases the amount of wheat that can be harvested with no additional labor or machinery. Also assume that this fertilizer does not affect potato farming and that people are satisfied to eat either bread made from wheat flour or potatoes.

Figure 7.5
Effects of a New Fertilizer



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

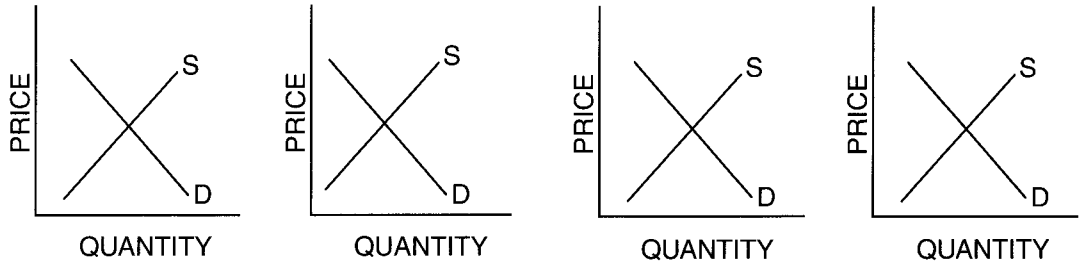
Figure 7.6
Effects of a Loss of Coffee Crop



	Coffee	Tea	Cream	Automatic Coffee Makers
Demand:	↑ — ↓	↑ — ↓	↑ — ↓	↑ — ↓
Supply:	↑ — ↓	↑ — ↓	↑ — ↓	↑ — ↓
Equilibrium price:	↑ — ↓	↑ — ↓	↑ — ↓	↑ — ↓
Equilibrium quantity:	↑ — ↓	↑ — ↓	↑ — ↓	↑ — ↓

9. Assume beef and pork are perfect substitutes. The price of pork rises dramatically. Catsup is a complement to beef; mustard is a complement to pork.

Figure 7.7
Effects of a Change in the Price of Pork



	Beef	Feed for Cattle	Catsup	Mustard
Demand:	↑ — ↓	↑ — ↓	↑ — ↓	↑ — ↓
Supply:	↑ — ↓	↑ — ↓	↑ — ↓	↑ — ↓
Equilibrium price:	↑ — ↓	↑ — ↓	↑ — ↓	↑ — ↓
Equilibrium quantity:	↑ — ↓	↑ — ↓	↑ — ↓	↑ — ↓