**Principles of Microeconomics**

**Demand and Supply Practice Exercises**

Question 1

Assume that each of the markets below is initially in equilibrium. Then for each market below, suppose that the indicated event occurs. Illustrate the effect of each event in a diagram and indicate the effects on the equilibrium price and quantity.

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| --- | --- | --- |
|  | **Market** | **Event** |
| i. | Rental apartments | Mortgages are more difficult to qualify for due to the housing market crash. |
| ii. | Labor | The U.S. experiences a resurgence of the Puritan work ethic. |
| iii. | Retirement Community housing units | The first baby boomers (born 1946 to 1964) start to reach retirement age in 2011 and look to downsize their housing. |
| iv. | Beef | Oprah’s comments about fear of contracting mad cow disease through the consumption of hamburgers ***coupled with*** an increase in the price of cattle feed. |
| v. | Bottled water in Japan | The Japanese earthquake and resulting tsunami destroy stores of bottled water and bottled water plants ***as well as*** severely damage infrastructure that delivers clean water to Japanese households. |

1. Explain the adjustment process in the rental apartment market after the shock to the new equilibrium.
2. Explain the adjustment process in the labor market after the shock to the new equilibrium.

Question 2

Suppose that the market demand for potatoes is given by Q = 1000 – 250P and the market supply of potatoes is given by Q = 150P, where P is the price per bag of potatoes and Q is the number of bags per month.

1. What are the equilibrium price and quantity for potatoes? Illustrate your answer graphically.
2. What is the consumer surplus at the equilibrium in part (a)? Indicate the area of consumer surplus in the diagram from part (a).
3. What is the producer surplus at the equilibrium in part (a)? Indicate the area of consumer surplus in the diagram from part (a).
4. In the context of the problem, provide three reasons why the demand for potatoes might increase.
5. In the context of the problem, provide three reasons why the supply of potatoes might decrease.

Question 3

The demand and supply schedules for broccoli are given in the following tables. Use this information to answer the questions below.

|  |  |  |
| --- | --- | --- |
| Price(per pound) | Quantity Demanded(000 pounds) | Quantity Supplied(000 pounds) |
| 1.00 | 100 | 0 |
| 1.50 | 90 | 40 |
| 2.00 | 80 | 80 |
| 2.50 | 70 | 120 |
| 3.00 | 60 | 160 |
| 3.50 | 50 | 200 |
| 4.00 | 40 | 240 |

1. What are the equilibrium price and quantity in the broccoli market? Illustrate your answer graphically.
2. Explain why the market will be in disequilibrium at a price of $3.50 per pound.
3. Explain how the market will adjust from a price of $3.50 per pound to the equilibrium identified in part (a).
4. New studies indicate that broccoli has significant healing powers if it is consumed daily. How will these studies affect the broccoli market? Explain the adjustment process to the new equilibrium.
5. Suppose instead that tighter immigration restrictions reduce the number of farm laborers. How will these restrictions affect the broccoli market? Explain the adjustment process to the new equilibrium.