

ACTIVITY 1

WHAT IS PRICE ELASTICITY OF DEMAND?

Name _____

Part I: Overview

According to the law of demand, quantity demanded decreases when price increases. When price decreases, quantity demanded increases. However, it's not enough to know in what direction quantity demanded changes in response to price changes. It is also important to know *how much* the quantity demanded changes. A business may decide not to increase the price of its product if consumers will buy *much less* of it at the higher price. But a business will certainly increase the price of its product if consumers will buy only a *little less* of it at the higher price.

The measure of how much quantity demanded changes relative to price changes is called **price elasticity of demand**. If the quantity demanded changes more than price, in percentage terms, demand is elastic. Elastic demand means the quantity demanded is very responsive to changes in price. If the quantity demanded changes relatively little, the good or service has an **inelastic** demand.

Several factors determine whether the demand for a product is elastic or inelastic in some price range.

Products that have many substitutes tend to have an elastic demand because it is easy to buy a substitute when its price rises. A product that has few substitutes tends to have an inelastic demand, because buyers don't have as much choice.

Goods and services that take a large portion of a consumer's budget tend to have an elastic demand because the price change has a bigger impact on the consumer's overall spending. Those that consume a small portion of a purchaser's budget tend to have an inelastic demand, because the impact of price changes for these products has a much smaller effect on the consumer's overall spending.

The more time consumers have to adjust to price changes, the more they will increase purchases in response to price decreases, and decrease purchases in response to price increases. Therefore, long-run demand tends to be more elastic than short-run demand.

Part II: Elastic or Inelastic?

Instructions: Determine whether the demand for the following items is price elastic or inelastic. Write your answer on the line after the item. Then write the reasons for your answer.

1. Salt _____
Why? _____

LESSON SEVEN

ACTIVITY 1 (continued)

2. New cars _____ Why? _____

3. Pork chops _____ Why? _____

4. European vacation _____ Why? _____

5. Insulin _____ Why? _____

6. Insulin at one of four drug
stores in a shopping mall
_____ Why? _____

7. Gasoline purchases one day
after a 20% price increase
_____ Why? _____

8. Gasoline purchases one year
after a 20% price increase
_____ Why? _____

LESSON SEVEN

ACTIVITY 2 (continued)

1. *Price rises* from \$5 to \$6. Quantity demanded decreases from 15 to 10.

A. Old price x old quantity demanded = old total revenue
5 15 75

B. New price x new quantity demanded = new total revenue
6 10 60

C. P \uparrow TR \downarrow elastic

2. *Price falls* from \$10 to \$9. Quantity demanded increases from 100 to 110.

A. Old price x old quantity demanded = old total revenue

B. New price x new quantity demanded = new total revenue

C. P TR _____

3. *Price rises* from \$6 to \$9. Quantity demanded decreases from 60 to 50.

A. Old price x old quantity demanded = old total revenue

B. New price x new quantity demanded = new total revenue

C. P TR _____

4. *Price falls* from \$6.50 to \$6.00. Quantity demanded increases from 100 to 200.

A. Old price x old quantity demanded = old total revenue

B. New price x new quantity demanded = new total revenue

C. P TR _____

LESSON SEVEN

ACTIVITY 2 (continued)

5. Price falls from \$4.00 to \$3.75. Quantity demanded increases from 300 to 400.

A. Old price x old quantity demanded = old total revenue

B. New price x new quantity demanded = new total revenue

C. P TR _____

6. Why do price and total revenue go in opposite directions when the demand for the good is elastic?

7. Why do price and total revenue go in the same direction when the demand for the product is inelastic? _____

ACTIVITY 3

APPLYING ELASTICITY TO THE REAL WORLD

Name _____

Instructions: Each of the following stories contains an assumption about elasticity of demand. For each story:

A. State whether the assumption made about the elasticity of demand is correct or wrong.

B. Justify your answer.

1. I. M. Politico, a candidate for the state legislature, is proposing a large increase in the tax on cigarettes and liquor. He says, "I'm not proposing these taxes to raise revenue, but to discourage reckless drinking and the filthy habit of smoking. If the prices of cigarettes and booze go up, most people will quit using them. After all, no one has to drink or smoke."

2. U. R. Kool, a candidate for Congress, proposes freezing the price of gasoline. "There is no substitute for gasoline," he says. "People have to get from one place to another. Economists who say higher prices will discourage people from buying as much gas as before don't live in the real world."

3. Councilman Vic Acqua opposed a price increase for water during a recent drought. He claimed that there is no substitute for water, and that therefore the demand for water is inelastic. He believes an increase in the price of water (with a water tax) will not cause the amount of water people use to go down at all.

4. Sky King, world traveler, says if the airlines want to attract more passengers, they should lower fares for business travelers as well as for vacationers. She believes both groups will respond equally to a price decrease.

LESSON SIX

ACTIVITY 1 PRICE FLOORS AND CEILINGS

Name _____

1. What is the market clearing price in the graph below?
4. What quantity would be demanded and what quantity would be supplied if the government passes a law setting a minimum price of \$80?

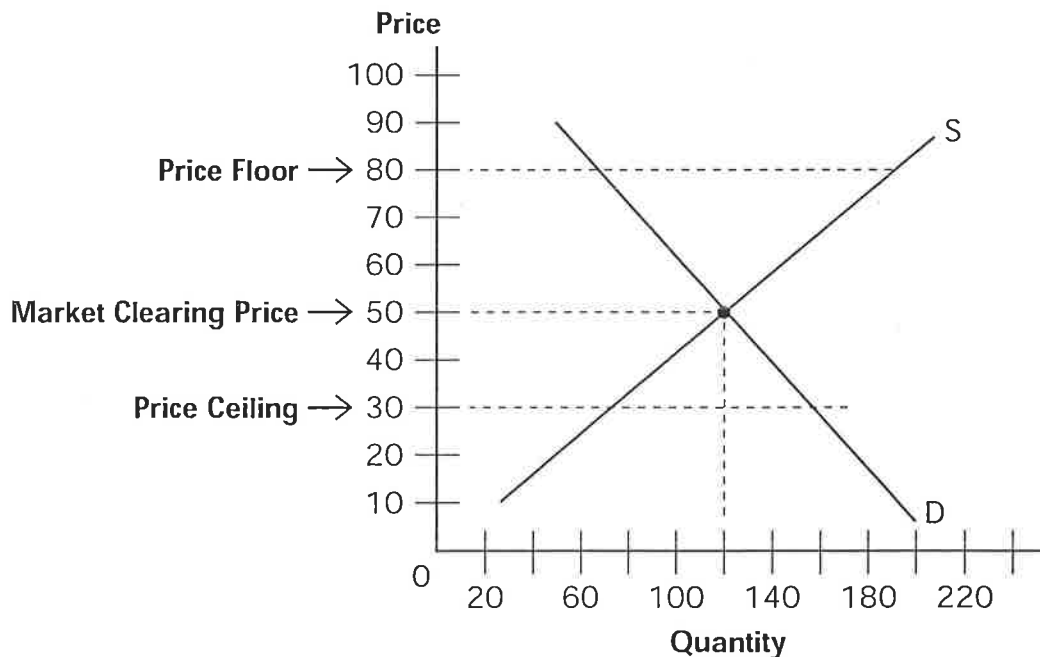
2. What quantity is demanded and what quantity is supplied at the market clearing price?

Quantity demanded _____
Quantity supplied _____

Quantity demanded _____
Quantity supplied _____

3. What quantity is demanded and what quantity is supplied if the government passes a law setting a maximum price of \$30?

Quantity demanded _____
Quantity supplied _____

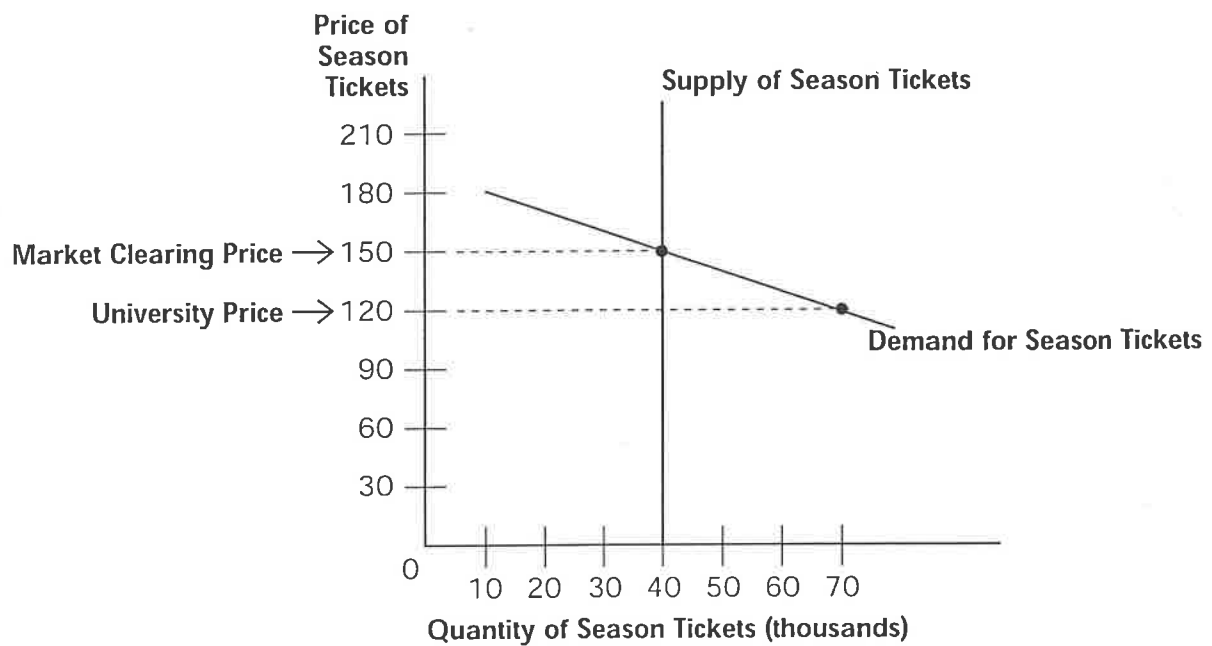


LESSON SIX

ACTIVITY 2 FOOTBALL FANATICS

Name _____

Big Football University has a stadium that seats 60,000 people. For each game, 15,000 seats are reserved for students, and 5,000 tickets are set aside to be sold during the week of the game on a first-come, first-served basis. The remaining 40,000 tickets are available to be sold as season tickets. The current price for a season ticket is \$120. The athletic director has been studying the graph below, showing the supply and demand for season football tickets.



Questions:

1. Why is the supply curve a vertical line?
2. How many total tickets are available at the University's price?
3. How many season tickets do football fans wish to buy at the University's price?
4. What is the problem facing the University and these football fans?

LESSON SIX

ACTIVITY 3 MARKETS FOR MILK

Name _____

Part I

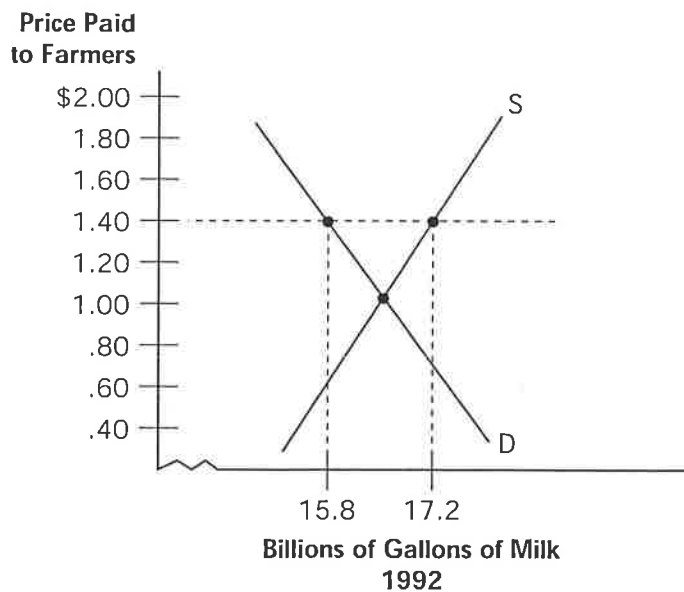
Through a system of geographic “marketing orders,” quotas, and price controls, the federal government establishes a minimum price paid to dairy farmers for milk. The effect of this system is to set the price at about \$1.40 per gallon.

In 1992, dairy farmers produced and sold about 17.2 billion gallons of milk. About 6.5 billion gallons were sold to consumers (at an average price of about \$2.40 per gallon). The remaining 10.7 billion gallons were sold to manufacturers and used in the production of butter, cheese, and dried milk.

Consumers purchased enough of these manufactured dairy products (butter, cheese, etc.) to account for about 9.3 billion gallons of milk. The federal government’s Commodity Credit Corporation purchased the remaining products, or the equivalent of about 1.4 billion gallons of milk. The graph below presents this information using basic supply and demand curves for milk.

According to the information in this graph:

1. Is there a shortage or a surplus in the market? Explain.
2. If there were no government price controls in the market, this graph suggests that the price of milk (the market-clearing price) paid to farmers would be approximately _____ per gallon.
3. Who would benefit and who would be hurt if price controls in the milk market were eliminated?



ACTIVITY 3 (continued)

Part II

Imagine that you are a member of the U.S. House of Representatives. You must decide whether to vote yes or no on a bill that would eliminate the price-support program for milk. In committee hearings on the bill, you heard testimony from people who favor eliminating the program and from people who favor retaining it.

For example, you heard Diane Doright, who works at University Public Policy Institute, say:

"This program is costly to consumers and taxpayers, and is an unnecessary and inefficient form of government interference in the economy. We estimate that, if the price support were ended, the price that milk processors pay for milk would decrease to about \$1.00 per gallon and that the price paid by consumers would decrease from \$2.40 per gallon to about \$2.00. Prices of other dairy products, such as butter and cheese, would also decrease. Taxpayers would benefit by no longer having to pay to store millions of pounds of butter, cheese, and dried milk. And one of the worst effects of this program is that it keeps small, inefficient farms in operation. We shouldn't fear the forces of market competition."

You also heard Senator William Foxfire, from a Midwestern state with many dairy farmers and cheese factories, say:

"People who want to eliminate this program just don't understand dairy farming. It is a very risky and unstable business. Feed costs may suddenly increase because of floods or droughts. Price supports bring some stability into this situation by making it possible for farmers to be sure of a certain price so they can ride out the rough times. And the so-called savings to consumers and taxpayers are an illusion. What would happen is that large, monopolistic dairy farms would take over the small family farms, and the price of milk might go even higher than it is now! As the displaced farmers moved into cities, taxpayers would be saddled with high costs of training and public assistance. Our small family farms represent the best American values of family, hard work, honesty, and thrift. We should not enact legislation that weakens these values."

Evaluate these statements and explain why you would vote for or against the bill.

