

MATH PRACTICE FOR ECONOMICS ACTIVITY 4

RECOGNIZING DEMAND AND ELASTIC DEMAND

Demand is the desire, ability, and willingness to pay for goods or services. You will find examples of demand almost everywhere you look in your community.

Directions: Answer the following questions.

Take this example: A retired couple who love to bowl open a bowling alley. It is the only place to bowl in town. When they first open, they charge only \$2 a game, including shoe rental. About 60 people a day come to bowl there. At the end of each day the owners figure their total receipts using this formula.

$$\text{Total Receipts} = \text{Price of the Product} \times \text{Quantity Sold}$$

What are their total receipts on an average day? **(1)** _____

The couple raises the price to \$3 a game after a while, and they still get in about 60 people a day to bowl. Their total receipts on an average day now are **(2)** _____

What is the difference between their total receipts now and their receipts when they first opened?

(3) _____

Did demand increase, decrease, or stay the same? **(4)** _____

They decide to raise the price to \$5 a game. Only about 35 people a day come in. Their total receipts a day are now about **(5)** _____.

(6) _____ How does this compare with their receipts at \$3 a game?

(7) _____ What happened to demand this time?

On the long February weekend for "Presidents' Day," the couple ran a special with games at \$1. What a turnout! People were lined up waiting for lanes! After the weekend the management counted up the receipts and found that over the three days, 618 people had come in. The total receipts for one day average **(8)** _____

_____ What effect did the special offer for Presidents' Day have on demand?

(9) _____

You may recall that if a change in price causes a relatively larger change in quantity demanded, demand is elastic. All in all, would you say that demand for bowling in this town was elastic? **(10)** _____

The couple made a chart of their total receipts at different prices to analyze demand for their product. Fill in the chart below for each price as they did.

Price per Game (11)	×	Number of Games Played (12)	=	Total Receipts (13)

At what price did the management take in the most money? **(14)** _____

Remember, receipts are not profits. They are revenue. To calculate profit, you must subtract costs from revenue.

Now consider these questions. Do you think the couple had to pay employees overtime during the Presidents' Day special? **(15)** _____ If they did, would that affect demand? **(16)** _____

Would it affect total receipts? **(17)** _____ Would it affect the couple's profit? **(18)** _____