

Discussion 4

Topics

- Elasticities

Problems

1. Consider the markets for football game tickets and the market for basketball game tickets. The demand curve for the former is $P + Q = 100$. But all we know about the demand for basketball game tickets is that no one is willing to buy any ticket when the price is above \$80 per ticket.
 - a) Find the price elasticity of demand for both the markets separately at the price of \$50 per ticket.
 - b) How do prices need to change from \$50 per ticket in order to increase revenues in both markets separately?
 - c) How do the elasticities at price of \$50 differ in the two markets if instead of the maximum willingness to pay is \$100 instead of \$80.
2. The following table gives part of the demand schedule for widgets in USA:

Price	1	3	5
Quantity Demanded	18	10	4

- a) Calculate the price elasticity of demand as the price increases from \$1 to \$3 using the mid-point formula. What happens to the total revenue as a result of the price increase?
 - b) Calculate the price elasticity of demand as the price increases from \$3 to \$5 using the mid-point formula. What happens to the total revenue as a result of the price increase?
3. Suppose demand for Donuts in Madison is given by $P = 120 - 3Q$
 - a) Calculate the price elasticity of demand at $P = 30$. What adjustment should be made to the price to increase total revenue?
 - b) Calculate the price elasticity of demand at $P = 90$. What adjustment should be made to the price to increase total revenue?
 - c) Calculate the price and quantity at which the total revenue is maximized. What is the maximum revenue that can be obtained?