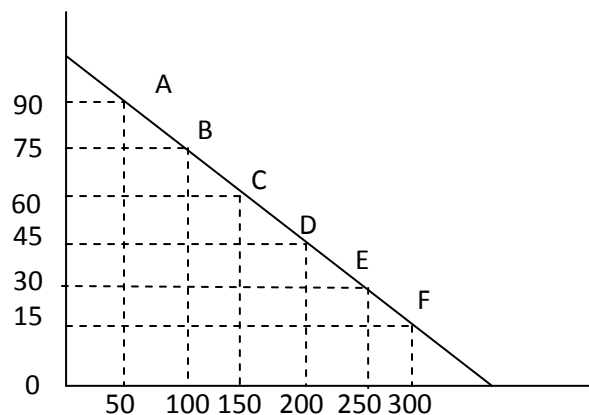


## ECO135 HW Questions for Chapter 5 Elasticity

Q4 (from textbook questions).

A department store has estimated the demand curve for a popular brand of women's dress shoes as a function of price. Use the diagram to answer the questions that follow.



- Calculate demand elasticity between points A and B, between points C and D, and between points E and F.
- If the store currently charges a price of \$75, then increases that price to \$90, what happens to total revenue from shoe sales (calculate  $P \times Q$  before and after the price change)?
- Explain why the answers to a. can be used to predict the answers to b.

Q5

For each of the following scenarios, decide whether you agree or disagree and explain your answer.

- If the elasticity of demand for cocaine is  $-0.2$ , and the Drug Enforcement Administration succeeds in reducing supply substantially, causing the street price of the drug to rise by  $50\%$ , buyers will spend less on cocaine.
- Every year Christmas tree vendors bring tens of thousands of trees from the forests of New England to New York City and Boston. During the last two years, the market has been very competitive; as a result, price has fallen by  $10\%$ . If the price elasticity of demand was  $-1.3$ , vendors would lose revenues altogether as a result of the price decline.
- If the demand for a good has unitary elasticity, or elasticity is  $-1$ , it is always true that an increase in its price will lead to more revenues for sellers taken as a whole.

Q8

Studies have fixed the short-run price elasticity of demand for gasoline at the pump at  $-0.20$ . Suppose that international hostilities lead to a sudden cutoff of crude oil supplies. As a result, U.S. supplies of refined gasoline drop  $10\%$ .

- a. If gasoline were selling for  $\$2.60$  per gallon before the cutoff, how much of a price increase would you expect to see in the coming months?
- b. Suppose that the government imposes a price ceiling on gas at  $\$2.60$  per gallon. How much the relationship between consumers and gas station owners change?