Homework #4

I am rewriting these homework problems. Sorry for the inconvenience. Please check back soon.

Do this too! Bob is a shoemaker and an economist. He has estimated the following demand curve for his shoes:

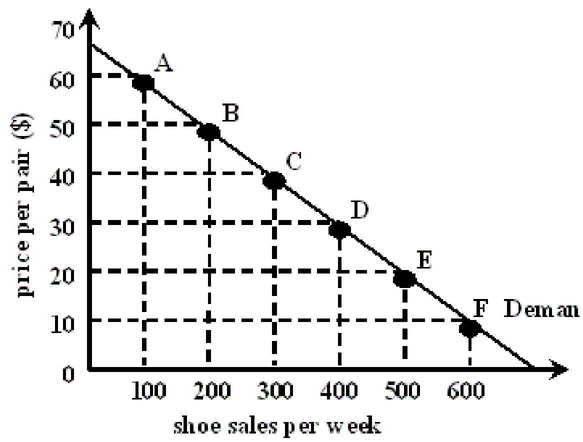
$$Q_D = 700 - 10P$$

a. Calculate the price elasticity of demand at points A through F.

b. Find the price at which demand is unit elastic.

c. What happens to Bob's total revenue (P*Q):
- if Bob increases the price from $20 to $30?
- if Bob increases the price from $30 to $40?
- if Bob increases the price from $40 to $50?

d. How could you use the answers to **a.** and **b.** to predict the answers to **c.**?



Do this too! Find the price and quantity where the price elasticity of demand equals one (unitary elasticity) for the following linear demand functions:
- $Q_D = 8 - 2P$
- $Q_D = 9 - 3P$
- $Q_D = 10 - 4P$

What would be the effect on revenue if the price rose from the level of unitary elasticity? If the price level fell? Why does revenue increase/decrease?

Do this too! The market demand function for a certain good is given by: $Q_D = 100 - 5P$.
Use that market demand function to answer following questions:

1. What is the price elasticity of demand when the price is $ 5?
2. What is the price elasticity of demand when the price is $10?
3. What is the price elasticity of demand when the price is $15?
4. Over what **range** of prices is demand for the good inelastic?
5. Over what **range** of prices is demand for the good elastic?
6. How does the concept of elasticity describe the way in which quantity demanded responds to changes in price?