

**Econ\_101\_Spring 2007\_IVY Tech College**  
**Homework 03: Solutions**  
**Chapter 03**

1. When the price of compact discs (CDs) increased from \$10 to \$11, the quantity demanded decreased from 100 to 87. What is the price elasticity of demand for CDs? Is demand elastic or inelastic?  
**The percentage change in price is 0.1. The percentage change in quantity demanded is 0.13. Price elasticity is 1.3. It is elastic. (Note that if you prefer to use arc elasticity, the correct answer is 1.46.)**
  
3. Would you expect the demand for a specific brand of running shoe to be more elastic or less elastic than the demand for running shoes in general? Why?  
**There are many substitutes for a specific brand such as Nike, for example Reebok, Keds, Adidas, boots, loafers, sandals, etc. There are fewer substitutes for all running shoes (and they are not as good substitutes). Thus, the demand for a specific brand of running shoe should be more elastic than the demand for running shoes in general.**
4. For each of the following goods, indicate whether you expect demand to be inelastic or elastic, and explain your reasoning.  
opera: **elastic (many substitute entertainments, a luxury)**  
foreign travel: **elastic (local, national travel are substitutes, a luxury)**  
local telephone service: **inelastic (no close substitutes)**  
video rentals: **elastic (many substitute entertainments)**  
eggs: **inelastic (no close substitutes, a staple food)**
  
5. You observe a positive relationship between the price that your store charges for CDs and the total revenue from CDs. Is the demand for your CDs elastic or inelastic?  
**Inelastic**
  
8. When the price of paper increases from \$100 per ton to \$104 per ton, the quantity supplied increased from 200 tons per day to 220 tons per day. What is the price elasticity of supply?  
**There is a 4% change in price and a 10% change in the quantity supplied, so elasticity of supply is 2.5.**