

ECON 110, Prof. Hogendorn

Problem Set 3

1. *Accord*. The Honda Accord is a popular midsize car. The base model is called the LX and sells for \$21,180. Honda sold about 24,000 Accords in the USA in the month of September 2010. An economist has estimated that the price elasticity of demand for the Honda Accord is about -4.5.
 - (a) Using the information above, do a back-of-the-envelope calculation to find a linear demand curve for Honda Accords.
 - (b) The elasticity estimate is high in magnitude, certainly far higher than what we discussed in the class about the oil market. Why do you think the elasticity for Accords is so high? Do you think the elasticity of demand for a Tesla Roadster is similarly high? (The Tesla Roadster is a \$109,000 2-seat sports car with an electric motor.)
 - (c) Not all Honda Accords are sold in the LX trim mentioned above. For example, there is also the EX-L V-6, which has a bigger engine and various luxury accessories, but costs about \$29,000. Do consumers who buy the EX-L V-6 get more or less consumer surplus than those who buy the LX? (There is no one correct answer, but you should discuss the various differences between the two cases.)
 - (d) Let the supply curve of Honda Accords be $s(p) = 20,000 + 0.19p$. What is the price elasticity of supply at the price and quantity given above?
2. *Tokens*³. Suppose the demand for subway tokens is

$$t(p_t) = 13.39p_t^{-2/3}$$

- (a) Graph this demand function and show the price/quantity point where the price of a token is \$1.50.
- (b) What is the elasticity of demand?
- (c) If the transit authority raises the price of subway tokens to \$2.00, will revenue rise or fall in the short run?
- (d) What is the change in consumer surplus from this change?

Review Problems only, not to turn in:

- 3. Review part (d) of the Juvenor problem from the last problem set.