

ECON 110, Prof. Hogendorn, Fall 2010

First Midterm Exam

Each part of a question (a, b, c, etc.) is worth 5 points. Make sure to allot your time accordingly. Total of 30 points, -1 for messiness, -2 for extreme messiness.

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?
- (e) Suppose there are two taxes on cars: an 8% sales tax and a \$500 per car conveyance fee. What is the supply curve with the two taxes?
- (f) Without actually finding the equilibrium with the taxes, do you think Honda or the consumers will end up paying more of the tax?