

Econ_101_Spring 2007_IVY Tech College
Chapter 03: Solutions to Sample Questions

2. Explain why the demand for residential natural gas (gas used for heating, cooling, and cooking) is more elastic than the demand for residential electricity.

Gas has more substitutes. If you don't want to heat with gas, you can switch to electricity or to heating oil. However, if you want to turn on your lights and the TV, your only real choice is electricity.

7. As the head of a state chapter of MADD (Mothers Against Drunk Driving), you are to speak in support of policies that discourage drunk driving. The number of highway deaths among young adults, which is roughly proportional to the group's beer consumption, is initially 100 per year. You have scheduled a news conference to express your support for a beer tax that will increase the price of beer by 10%. The price elasticity of demand for beer is 1.30. Complete the following statement: The beer tax will decrease the number of highway deaths among young adults by about ____ per year."

If the price of beer rises by 1%, the quantity demanded falls by 1.3%. A 10% increase would thus result in a 13% decrease in quantity demanded, and thus, there would be 13% fewer deaths, 13 less per year.

9. Suppose the government restricts logging to protect an endangered species. The restrictions increase the price of wood products and shift the supply curve for new housing to the left by 4%. The initial price of new housing is \$100,000, the elasticity of demand is 1.0, and the elasticity of supply is 3.0. Predict the effect of the logging restriction on the equilibrium price of housing.

There will be a 1% increase in the price of housing.