Practice questions: Elasticity

Principles of Microeconomics

1. For each pair, decide which is more elastic and explain why.

|  |  |
| --- | --- |
| Demand for Snickers | Demand for candy bars |
| Demand for insulin | Demand for ibuprofen (Advil) |
| Demand for TVs during a recession | Demand for TVs during an economic boom |
| The supply of solar panel pavement tiles over the next year | The supply of solar panel pavement tiles over the next 20 years |
| Supply of all labor economists | Supply of labor economists with a specialty in contraception and fertility |
| Supply of diamonds before a new diamond manufacturing process is developed | Supply of diamonds after a new diamond manufacturing process is developed |
| The demand for all cocaine products | The demand for crack |
| Demand for strawberries in the 1780s | Demand for strawberries today |
| Mark Zuckerberg's demand for grey T-shirts and (pre-death) Steve Jobs' demand for turtlenecks | Your demand for your favorite kind of shirt |
| Mark Zuckerberg's demand for grey T-shirts | Mark Zuckerberg's demand for yellow T-shirts |
| Demand for Exxon gasoline at the corner of 7th St and Grand Ave | Demand for gasoline in the entire city |
| Demand for a brand-name drug before its patent expires | Demand for a brand-name drug after its patent expires |
| The supply of Cheerios | The supply of breakfast cereals |
| Demand for calories | Demand for delicious flavors |
| Demand for all coffee | Demand for Ethiopian coffee |
| Demand for clean water | Demand for nutritious food |

1. Evaluate this claim: “Demand for gasoline is not very elastic because there are no substitutes.”
2. Suppose that after this semester I hire you as a TA. On the first day of class, we are talking about demand being downward sloping, and a student says, “But what about cancer drugs? If their price goes up, people will still buy them no matter what they cost.” How would you respond to this student?
3. The invention of nuclear power plants likely made demand for coal power fall and become [more elastic]/[less elastic]. Explain.
4. Men and women typically have quite different experiences in labor markets. Which is more elastic: the elasticity of supply of women’s market labor or the elasticity of supply of men’s market labor? Keep in mind that workers are the suppliers of labor and that workers’ wage rate is the price. In other words, if offered wages went up by 20%, whose response would be bigger? Would women be induced to increase their work more or less than men would?
5. Which is more elastic: demand for condoms or demand for emergency contraception (“the morning after pill”)? Explain.
6. Evaluate this claim: “If a college increases its tuition a bit, it won’t affect how many seniors register because seniors can’t switch schools and keep all their credits, so they are stuck with that school.”
7. Which is more elastic: the demand for iPhones or the demand for Samsung phones? Explain.
8. Which is more elastic: the demand for iPhones or the demand for Android phones? Explain.
9. True or false: a luxury tax is a very effective way to raise revenue for a government because luxuries are so expensive and the people who buy them do not care about prices. Explain.
10. Which of the following is most likely to be false? Explain.
    1. The supply of solar panel pavement tiles over the next year is less elastic (more inelastic) than the supply over the next twenty years.
    2. Supply of labor economists with a specialty in contraception and fertility is less elastic (more inelastic) than supply of all labor economists.
    3. If plastic manufacturers become start buying a larger of all petroleum produced, then this will make the supply curve for plastic become more inelastic.
    4. If a new process for manufacturing diamonds is created, the supply curve for diamonds will become more elastic.
11. When people evacuate because of a hurricane, they often go to nearby towns. This increases demand for housing in the nearby towns. Consider Hurricane Aretha and Hurricane Gladys, which hit the city of Lowland in parallel universes:

|  |  |  |
| --- | --- | --- |
| Hurricane Aretha |  | Hurricane Gladys |
| Causes widespread flooding in the city of Lowland that requires 80% of the people in the city to evacuate to the city of Highland. Those 80% then discover that their homes are destroyed. |  | Causes widespread flooding in the city of Lowland that requires 80% of the people in the city to evacuate to the city of Highland. Those 80% then discover that their homes are destroyed. |
| The government pays for them to rebuild their homes in Lowland (this is a very simplified version of current policies). Suppose it takes about a month to rebuild (probably too optimistic). |  | In a new policy, the government pays for them to buy a home in Highland. Assume that the new residents of Highland do not push out the old residents. |

Notice that the same number of people will be living in Highland a year after Hurricane Gladys as were living in Highland in the week after Hurricane Aretha.

Use ideas about elasticity of housing supply to describe what will happen to the price of housing in Highland over time in response to each hurricane. Draw out what happens with prices over time in each case using graphs like the ones below.

