Ec 11 Homework 2
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CALTECH

1. Suppose demand and supply have constant elasticity equal to 3. What happens to equilibrium price and quantity when the demand increases by 3% and the supply decreases by 3%?
2. Show that elasticity can be expressed as a constant times the change in the log of quantity divided by the change in log of price. (That is, show $\varepsilon = A\frac{d\ln x(p)}{d\ln p}$). Find the constant *A*.
3. A car manufacturing company employs 100 workers and has two factories, one the produces sedans and one that makes trucks. With *m* workers, the sedan factory can make m^2 sedans per day. With *n* workers, the truck factory can make $5n^3$ trucks per day. Graph the production possibilities frontier.
4. In the previous exercise, assume sedans sell for $20,000 and trucks sell for $25,000. What assignment of workers maximizes revenue?
5. Define comparative advantage and give an example relating to current events.