

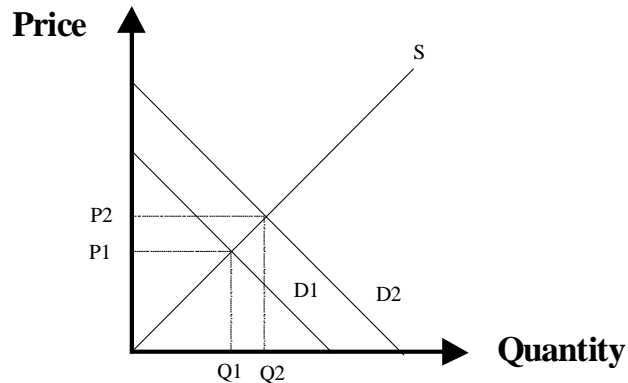
Econ_101_Spring 2007_IVY Tech College
Homework 01 Solutions

4. Draw a supply-demand diagram to illustrate the effect of an increase in income on the market for restaurant meals.

Demand rises; price and quantity rise.

5. Suppose that the tuition charged by public universities increases. Draw a supply-demand diagram to illustrate the effects of the tuition hike on the market for private college education.

Demand for private college increases (as the price of a substitute has risen); price and quantity rise.



6. Suppose the government imposes a tax of \$1 per pound of fish and collects the tax from fish producers. Draw a supply-demand diagram to illustrate the effects of the tax.

Supply decreases; price rises and quantity falls.

7. As summer approaches, the weekly rent of beach cabins increases and the quantity of cabins rented increases. Draw a supply-demand diagram that explains these changes.

Demand for cabins rises; price and quantity rise.

8. Suppose that the initial price of a pocket phone is \$100 and the initial quantity demanded is 500 phones per day. Depict graphically the effects of a technological innovation that decreases the cost of producing pocket phones. Label the starting point with an \bar{i} and the new equilibrium with an \bar{n} .

The supply curve shifts to the right (increases), so the innovation decreases the equilibrium price from \bar{i} and increases the equilibrium quantity.

9. You've been hired as an economic consultant to evaluate the nation's airport security systems (metal detectors and machines that allow security people to see what's inside carry-on luggage). Suppose these security systems add \$5 to the typical airplane ticket and require 10 minutes of extra time for each passenger. List the questions you will answer in your evaluation.

There are many possible answers. Overall, the price of airline tickets has increased, due to the explicit cost of the machines and the implicit cost of passenger time. An increase in price will cause a decrease in the quantity demanded of airline tickets. There may also be effects on other markets; if consumers purchase fewer airline tickets, they may demand more train tickets, travel more by car, etc., and there may be additional effects of these shifts in related markets. The economic consultant must also evaluate the level of optimal safety according to the marginal rule. In other words, does the marginal benefit of an increase in safety equal the marginal cost?