

Principles of Microeconomics
Practice Problems for Supply and Demand
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Questions:

1. Suppose that there is an announcement that chocolate causes cancer. What would happen to equilibrium price and quantity in the market for Godiva chocolate? Be able to draw the graph that illustrates your answer.
2. Suppose that the price of Hershey's chocolate increases. What would happen to equilibrium price and quantity in the market for Godiva chocolate? Be able to draw the graph that illustrates your answer.
3. Suppose that the price of sugar increases. What would happen to equilibrium price and quantity in the market for Godiva chocolate? Be able to draw the graph that illustrates your answer.
4. Suppose that a company invents a better machine for mixing the ingredients to make chocolate candies. What would happen to equilibrium price and quantity in the market for Godiva chocolate? Be able to draw the graph that illustrates your answer.
5. Suppose the equation for demand can be expressed as $P = 20 - Q$. The equation for supply can be expressed as $P = Q$. Find the equilibrium price and quantity. Be able to draw the graph that illustrates your answer.
6. Suppose the equation for demand can be expressed as $P = 40 - 2Q$. The equation for supply can be expressed as $P = Q$. Find the equilibrium price and quantity. Be able to draw the graph that illustrates your answer.
7. Suppose the equation for demand can be expressed as $P = 30 - Q$. The equation for supply can be expressed as $P = 2Q$. Find the equilibrium price and quantity. Be able to draw the graph that illustrates your answer.

Answers:

1. Demand decreases (shifts left) because of a change in consumer tastes. Equilibrium price decreases, and equilibrium quantity decreases.
2. Demand increases (shifts right) because the price of a substitute good increases. Equilibrium price increases, and equilibrium quantity increases.
3. Supply decreases (shifts left) because the price of an input increases. Equilibrium price increases, and equilibrium quantity decreases.
4. Supply increases (shifts right) because of better technology. Equilibrium price decreases, and equilibrium quantity increases.

5.

$$Q = 20 - Q$$

$$2Q = 20$$

$$Q = 10$$

$$P = Q, \text{ so } P = 10$$

6.

$$Q = 40 - 2Q$$

$$3Q = 40$$

$$Q = 40/3 = 13.3$$

$$P = Q, \text{ so } P = 40/3 = 13.3$$

7.

$$2Q = 30 - Q$$

$$3Q = 30$$

$$Q = 10$$

$$P = 2Q, \text{ so } P = 2 * 10 = 20$$