

**Economics 1**  
**Study Questions on S&D**

**SUPPLY AND DEMAND**

**Demand Side**

1.
  - a. The law of demand asserts that as the price of a good decreases, the demand curve for that good should shift to the right. True or false, explain.
  - b. The law of demand claims the demand curves have negative slopes. True or false, explain.
  - c. The law of demand claims that as the price of a good rises, people stop wanting the good. True or false, explain.
  - d. The law of demand claims that as the price of a good rise, the quantity demanded will by a lot, other things constant.
2. How would each the following events shift the demand curve for coffee:
  - a. An increase in income. Assume that coffee is a normal good.
  - b. An increase in the price of cream.
  - c. A decrease in the price of tea.
  - d. Buyers expect the *future* price of coffee to rise.
  - e. A large and successful advertising campaign by coffee producers occurs.
  - f. The price of coffee falls.
3. Which of the following is likely to cause an *decrease in the demand* for medical care:
  - a. An increase in the number of people on low-cholesterol diets.
  - b. A decrease in the price of medical care.

**Supply Side**

4. Distinguish between a “change in supply” and a “change in quantity supplied”. What causes each to occur?  
For each of the following statements, indicate whether you agree or disagree with it and explain why:
  - a. “A higher wheat price causes an increase in the supply of wheat”.
  - b. “A lower quantity supplied of cars causes a higher price for cars”.
5. How would each of the following events affect the supply curve for crude oil:
  - a. A major technological improvement in extracting oil from the ground occurs.
  - b. The cost of labor rises.
  - c. Oil producers expect the *future* price of oil to fall.
  - d. The price of crude oil rises.

**Supply and Demand model**

6.
  - a. Define: Equilibrium price, shortage and surplus. What role does the money price of a good play in eliminating shortages or surpluses?
  - b. For each statement, indicate whether economic definitions are being used correctly: “Drought has reduced the wheat crop and thus created a shortage of wheat.” “Countries with large populations experience a surplus of workers.”

**Supply and Demand: Applications**

7. “If there is an increase in demand, the price rises, but the higher price decreases demand and increases supply, thus reducing the price back to its original level.” Explain what is wrong with this statement and correctly state the effect of an increase in demand.
8. Using supply and demand graphs, explain what will happen to the equilibrium price and quantity of almonds grown in the U.S. when:
  - a. New Environmental Protection Agency regulations prohibit the use of certain pesticides and herbicides widely used by almond growers to reduce crop damage.

- b. there is a development of an extensive, efficient almond-growing industry in other countries. This creates a substitute for US grown almonds.
  - c. there is an large increase in the demand for raisins (which can be grown on almonds land).
  - d. Almond farmers in California face lower prices for irrigation water. Almonds are an irrigated crop.
  - e. both (a) and (b) occur.
9. Using supply and demand graphs, explain what will happen to the equilibrium price and quantity of gasoline in California:
- a. World events lead to a rise in the price of crude oil. Crude oil is an input the production of gasoline.
  - b. Mild winter weather on the East Coast results in the drop in the demand for heating fuel (which uses crude oil as an input).
  - c. A surge in travel during the summer months.
  - d. A series of gasoline refinery accidents in California.
  - e. Both (d) and (c) occur.
10. Over the course of the past century or so the quantity of iron produced and consumed has increased dramatically. Over that same period the price of iron (adjusted for inflation) has decreased. Population has risen substantially over this period of time. Use a supply and demand model to explain the change in equilibrium P & Q.
11. Multiple choice question (circle one): Which of the following can explain a rise in the price of oranges.
- a. Consumer income has fallen. Oranges are a normal good.
  - b. The price of peaches (a substitute good) has decreased.
  - c. The demand for residential housing in counties that devote large tracts of land to orange orchards has risen dramatically.
  - d. The price of water used to irrigate orange orchards has fallen.
12. Multiple choice question (circle one): Tin and aluminum are substitutes. If the price of tin rises we would expect the equilibrium price of *aluminum* to \_\_\_\_ and the equilibrium quantity of *aluminum* to \_\_\_\_.
- a. rise; rise.
  - b. fall; fall.
  - c. fall; rise.
  - d. rise; fall.
  - e. none of the above.
13. Multiple choice question (circle one): Suppose the government imposes new environmental regulations that cause the cost of producing cars to increase. At the same time consumer income rises. Cars are a normal good. We would expect the equilibrium price of cars to \_\_\_\_ and the equilibrium quantity of cars to \_\_\_\_.
- a. rise; rise.
  - b. fall; fall.
  - c. rise; fall.
  - d. fall; rise.
  - e. uncertain; fall.
  - f. fall ; uncertain.
  - g. rise; uncertain.
  - h. uncertain; rise.
  - i. uncertain; uncertain.

14. Multiple choice question (circle one): If the level of tuition rises we would expect the equilibrium price of *textbooks* to \_\_\_\_ and the equilibrium quantity of *textbooks* to \_\_\_\_\_.

- a. rise; rise.
- b. fall; fall.
- c. fall; rise.
- d. rise; fall.

15. Suppose someone claims to have discovered an exception to the law of demand by arguing as follows: “I have noticed that price of housing has risen, yet people are buying even more houses! Economists claims as price rises, the quantity demanded should go down, but I see it going up!” Explain what is wrong with this statement.

### Answers for Study Questions-S&D

- 1.a.False. A change in price does *NOT* shift the demand curve, but causes a *movement along a given* demand curve. In this case, a decrease in price causes a movement **down** along the demand curve. See Figure 1a. Don't forget that a shift means we get an entirely new demand curve.
- 1b. True. The law of demand claims that as price increases, quantity demanded decreases, other things constant. This implies a negatively-sloped curve (that is, a downward sloping demand curve).
- 1c. False. The law of demand says nothing about “wants” or “needs”. It merely claims that as the price of a good increases, the amount of the good people are ABLE and WILLING to purchase decreases, other things constant. For example, as the price of ice cream rises, I may be unable or unwilling to purchase as many ice cream at this higher price. That does not mean that I stop deriving satisfaction from consuming ice cream (that is, I will “want” ice cream).
- 1d. False. It does not say **BY HOW MUCH** quantity demanded will be impacted when price rises (or falls). It only claims that price and quantity demanded move inversely, other things constant.
2. a. Increase in demand (rightward shift). Normal good, so higher income increases demand See Figure 2a.
2. b. Since cream is a complement to coffee, this would cause a decrease in demand for coffee. (leftward shift). See Figure 2b. Recall that the definition of a complement is this: any two goods X and Y are complements if as the price of X rises, the demand for Y falls (that is, price of X and demand for Y are inversely related).
- 2.c.Tea and coffee are substitutes, so a decrease in the price of tea would cause a decrease in demand for coffee. See Figure 2c. Recall that the definition of a substitute is this: any two goods X and Y are substitutes if as the price of X rises, the demand for Y rises (that is, price of X and demand for Y are move in same direction).
- 2d.This would cause the current demand for coffee to rise. See Figure 2d. The logic is that consumers would have a higher demand for coffee now in anticipation of have to face a higher price in the future.
- 2e. Increase in demand. See Figure 2e. This is a change in “tastes and preferences”.
- 2f. **NO SHIFT**. This would cause a movement along a given demand curve, not a shift.
3. a.We would expect this to reduce health problems and thus decrease the demand for medical care (leftward shift).
- b. A decrease in the price of medical care would cause a movement down along the D curve, **NOT** a shift.
4. A *change in quantity supplied* refers a movement along a given supply curve. The only thing which causes a movement along a given supply curve is a change in the price of the good. See Figure 4a.