

5 SUPPLY

OVERVIEW

1. Supply tells how much of a good a seller is willing and able to produce at each price.
2. The quantity supplied and supply are not the same. The quantity supplied is the amount a firm is willing and able to produce at a particular price.
3. The law of supply states that the quantity supplied increases as the price goes up. There is a direct relation between the price and the quantity supplied.
4. Movements along the supply curve are caused only by a change in the price of the good.
5. Movements of the supply curve occur when a determinant of supply changes.
6. The determinants of supply are nature, the cost of production, the price of other goods, and the expectation of a change in price.

MATCHING

- | | | | | |
|-------|----|-----------------------------|----|--|
| _____ | 1. | supply | a. | include the factors that cause supply to shift |
| _____ | 2. | quantity supplied | b. | is the quantity of a good produced at a given price |
| _____ | 3. | law of supply | c. | the amount a seller is willing and able to produce at each price, all else held constant |
| _____ | 4. | change in quantity supplied | d. | says that the quantity supplied rises as the price rises |
| _____ | 5. | change in supply | e. | is due to a change in the price of the good |
| _____ | 6. | determinants of supply | f. | is due to a change in a determinant of supply |

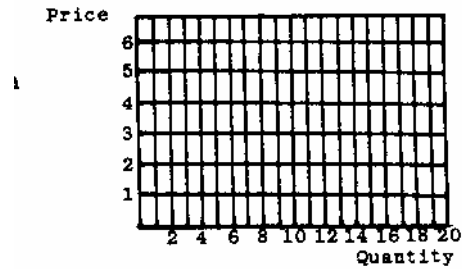
TRUE-FALSE

- _____ 1. If there is a change in the price, then supply changes.
- _____ 2. To cause supply to change, there must be a change in the price of the good.
- _____ 3. If there is an increase in the price of an input, then supply will shift left.
- _____ 4. A shift left in the supply is also called a rise in supply.
- _____ 5. The law of supply says that what is demanded is supplied.

PROBLEMS

1.a. Plot each price and quantity pair from the table. Connect the points to form a supply curve.

Price	Quantity
\$6	14
5	12
4	10
3	8
2	6
1	4



b. As price rises, what happens to the quantity supplied?

c. As price falls, what happens to the quantity supplied?

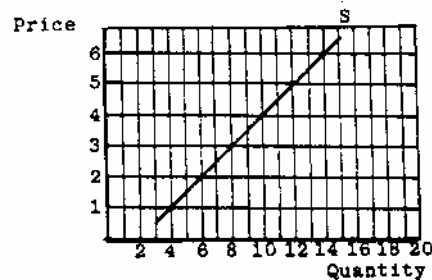
d. At a price of \$5, what is the quantity supplied?

e. Supply is an example of a _____ relation.

f. What are the determinants of supply? _____

2. Suppose that because of a change in technology, the new supply information is as shown in the following table.

Price	Quantity
\$ 6	16
5	14
4	12
3	10
2	8
1	6



a. Plot these points on the graph reproduced from problem 1 and connect the points. What has happened to the supply curve? _____

b. At each price _____ will be supplied than before. Therefore, _____ has increased.

c. If there is an increase in the price of raw materials, you would expect:

d. Determinants of supply cause: _____

e. The only way we can move along supply is if _____ changes.

3. Fill in the blank with Qs if the quantity supplied of bread changes and S if the supply curve for

bread shifts.

4. Fill in the blank with supply or quantity supplied to correctly complete the sentence.
 - a. Silicon chips have revolutionized computers. The _____ of computers has increased.
 - b. The price of Cabbage Patch dolls has fallen. This has _____ caused a decrease in _____.
 - c. Labor costs are a primary cost for ice cream parlors. The price of labor has been going up. This will cause a decrease in the _____ of ice cream parlors.
 - d. Prefabricated homes have cut the cost of home building. Thus the _____ of homes has increased.
 - e. Now tomatoes can be picked by machines. There is an increase in the _____ of tomatoes. If the price of tomatoes falls, the _____ of tomatoes falls.

IN THE NEWS

1. Record crops of corn, sorghum and barley are in the forecast. The forces of nature have conspired to provide the rain and sun needed for a bumper crop.
 - a. Is this reading about supply or the quantity supplied? Explain. _____

 - b. What determinant of supply is indicated here? _____

2. As the price of diesel fuel rises, diesel cars become less and less attractive. They were once desirable because they got more miles per gallon than gasoline cars, and diesel fuel cost less than gasoline. Some American auto manufacturers are no longer offering diesels as an option. "They are not efficient enough," says an industry representative.
 - a. Does the representative mean that gasoline engines now get more miles per gallon than a diesel engine? _____
 - b. Suppose that diesel fuel now costs more than gasoline and that diesel engines cost more to buy than gasoline engines. How does this information affect the efficiency of the diesel engine?

 - c. Why is it that more diesel engines are not being supplied? _____

3. Producers of soups and canned vegetables are under pressure not to buy fruit and vegetables from farmers who fail to provide decent accommodations for the migrant workers who pick the fruits and vegetables.
 - a. How are the soup producers and vegetable canners affected by migrant worker conditions?

 - b. Is this piece about supply or the quantity supplied? Explain. _____

4. We are facing a revolutionary change in commercial aircraft. With a back to the future switch, producers of passenger planes are considering replacing the jet engines of today with turbine engines using propeller blades. Recent innovations have made the propeller airplane as fast as a jet and 30 percent more fuel efficient.¹
- a. Is this piece about supply or the quantity supplied? Explain. _____
-
- b. What determinant of supply is discussed in this piece? _____
-

PRACTICE TEST

Circle the correct answer.

- The quantity supplied means:
 - the amount sold.
 - the amount the firm wants to sell.
 - the amount the firm is able to produce.
 - the amount the firm is willing and able to produce at a specific price.
- An increase in the price of bicycles will cause:
 - a decrease in the supply.
 - an increase in the supply.
 - a decrease in the quantity supplied.
 - an increase in the quantity supplied.
- Which will not change the supply of eggs?
 - The cost of producing eggs increases.
 - The price of eggs falls.
 - The price of eggs is expected to rise.
 - Chickens lay fewer eggs.
- If supply increases:
 - the quantity supplied increases.
 - more is offered for sale at each price.
 - less is offered for sale at each price.
 - the quantity supplied decreases.
- When the cost of production goes up, there will be:
 - an increase in supply.
 - a decrease in supply.
 - an increase in quantity supplied.
 - a decrease in quantity supplied.

¹ Adapted from "Flying Back to the Future," by William Marbach with Peter McAlevey and William Cook, in *Newsweek*, August 5, 1985.

ANSWERS

Matching

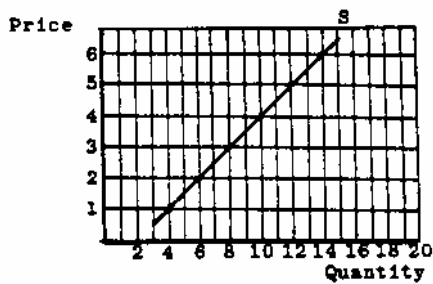
1. c
2. b
3. d
4. e
5. f
6. a

True-False

1. F
2. F
3. T
4. F
5. F

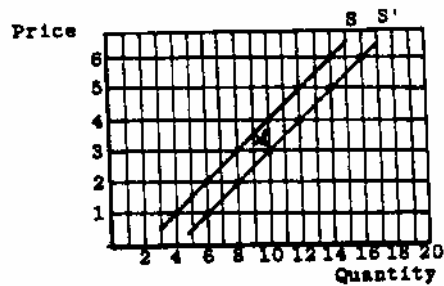
Problems

1.a.



- b. As the price rises, the quantity supplied increases.
- c. As the price falls, the quantity supplied decreases.
- d. At \$5 each, 12 units are supplied.
- e. Supply is a direct relation.
- f. cost of production, nature, expectation of a change in price, change in the price of other goods.

2.a. The supply has increased.



- b. more, supply
 - c. An increase in the price of inputs increases the cost of production, and supply decreases and shifts left.
 - d. The determinants of supply cause the curve to shift.
 - e. the price of the good
- 3.a. Qs, b. S, c. S, d. S, e. Qs
 f. Qs, g. S, h. S, i. S, j. Qs
4. a. supply
 b. quantity supplied
 c. supply
 d. supply
 e. supply, quantity supplied

In the News

- 1.a. This reading is about supply. The supply curve has moved. At each price more is offered for sale than before, thus an increase in supply.
 b. This determinant of supply is nature.
- 2.a. No, the representative still expects diesel engines to get more miles per gallon than the gasoline engine.
 b. The efficiency measured in miles per gallon is not affected by the cost information. But the efficiency measured in terms of dollars per mile will be affected. The diesel now becomes less cost efficient.
 c. Producers are not producing diesel engines because the producers are not being offered a sufficient price.
- 3.a. A change in migrant worker conditions would cause the farmer's costs to rise. Thus the cost of the fruit the farmer provides to the canner would go up. The canner's costs would go up due to a change in the price of an input.
 b. This reading is about supply. The main information is the impact on the cost of production to the canner. This will cause the supply of canned goods to shift.
- 4.a. An old technology is brought back into use after it is modified. Since there is a change in technology, the reading is about supply and not the quantity supplied. A change in technology changes the cost of production.
 b. Technology and its impact on cost is the determinant of supply that is discussed in this reading.

Practice Test

1.d., 2.d., 3.b., 4.b., 5.b.