

# Chapter 2

This is Macroeconomics  
and Microeconomics

## The Basics: Part 2 Supply and Demand

1. this chapter is about how the **supply and demand model** is used to explain how markets, such as the healthcare or car market, determine prices (P) and quantity (Q)
2. consists of three elements
  - A. **quantity demanded (Qd)**- describing the behavior of consumers (those who demanded/buy) in the market
  - B. **quantity supplied (Qs)**- describing the behavior of firms/businesses (those who supply/produce) in the market
  - C. **market equilibrium (Me)**- connecting quantity demanded and quantity supplied, the point where consumers and firms agree on the price and quantity in the market

Price

APPLES

## **Introduction (cont.)**

1. **classical economics-** the belief that economies will self-correct over time and that governments should not get involved
2. if an economy is expanding (growing) or contracting (shrinking) and no financial actions are taken by the Federal Reserve or Congress, the economy will eventually return to its typical equilibrium by itself
  - A. this happens because in most situations, if an economy is in expansion/has high inflation (high prices), workers' wages will increase which will decrease how much companies have to spend
3. if an economy is in contraction/in recession, workers' wages will decrease which will increase how much companies have to spend

*please take out  
your multiple  
choice practice;  
go to #36*

## Demand

1. **demand** (D) is a relationship between two economic variables (factors): 1) the **price** (P) of a particular good and 2) the quantity demanded (Qd) of a particular good (how much consumers are willing to buy at a specific price)
2. the **law of demand** states that the higher the price of a good is in a market, the lower the quantity demanded of the good by consumers, and the lower the price of a good, the higher the quantity demanded

(P)	Price	Quantity Demanded	(Qd)
	\$140	18	
	\$160	14	
	\$180	11	
	\$200	9	
	\$220	7	
	\$240	5	
	\$260	3	
	\$280	2	
	\$300	1	

### **Demand- Questions**

36. One reason consumers typically increase the quantity of a good they purchase when the price of the good decreases is that
- (A) the marginal utility of the good increases
  - (B) consumers' purchasing power increases
  - (C) consumers increase their purchases of substitute items
  - (D) consumers increase their purchases of complementary items
  - (E) the demand for the good increases

## Demand- Questions

36. One reason consumers typically increase the quantity of a good they purchase when the price of the good decreases is that

the marginal utility (benefit) from purchasing doesn't involve P decreasing

(A) the marginal utility of the good increases

☒ (B) consumers' purchasing power increases

(C) consumers increase their purchases of substitute items

when P decreases, more normal goods are purchased

(D) consumers increase their purchases of complementary items

(E) the demand for the good increases

consumer D doesn't increase because D increases (not logical)

### **Demand- Questions**

3. Which of the following best describes the law of demand?
- (A) The price of a good increases when the demand for the good increases.
  - (B) The price of a good decreases when the supply of the good decreases.
  - (C) When the price of a good increases, its demand decreases.
  - (D) When the price of a good decreases, its quantity demanded increases.
  - (E) Demand creates its own supply.

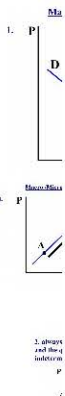
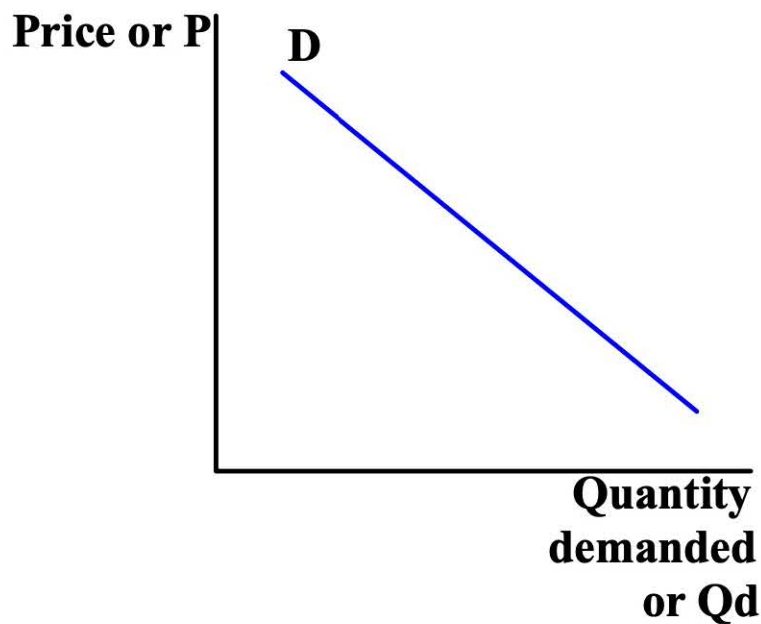
### Demand- Questions

3. Which of the following best describes the law of demand?

- (A) The price of a good increases when the demand for the good increases. ← not always
- (B) The price of a good decreases when the supply of the good decreases. ← increases
- (C) When the price of a good increases, its demand decreases. ← good answer, but "D" is more specific/better
- ☒ (D) When the price of a good decreases, its quantity demanded increases.
- (E) Demand creates its own supply. ← Ahhhhhh, no!

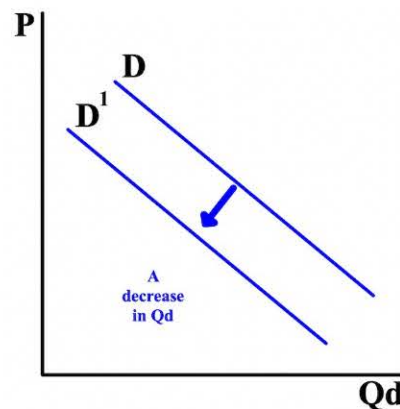
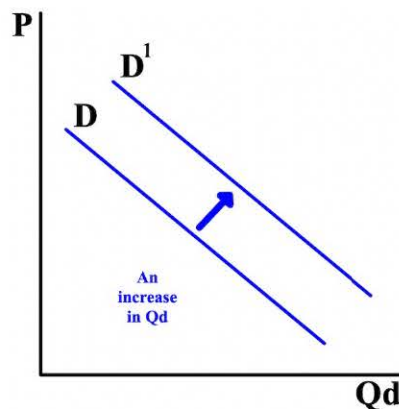
## The Demand Curve

1. the graph is a **demand curve**
  - A. it represents the law of demand graphically
2. the market demand curve slopes downward left to right and shows the **market quantity** (the quantity demanded of goods and services at any given price)



## Shifts (Moves) in Demand

1. the quantity demanded ( $Q_d$ ) of a good or service that people buy is affected by the item's price ( $P$ ), consumers' tastes and preferences, the number of consumers in the market, the price of similar goods, consumers' incomes, and consumers' expectations of the future **market price** (the price of something that is sold in a market)
2. an increase in quantity demanded **shifts** (moves) the demand curve up/to the right (left graph)
3. a decrease in quantity demanded shifts the demand curve down/to the left (rightt graph)



please take out  
your multiple  
choice practice;  
go to #34

### **Shifts (Moves) in Demand (cont.)**

1. goods for which quantity demanded ( $Q_d$ ) increases when income rises and decreases when income falls are called **normal goods**
2. the quantity demanded for **inferior goods** may decline when income increases
3. the prices ( $P$ ) of closely related goods are also a factor
  - A. a **substitute** is a good that provides some of the same uses or enjoyment as another good, like buying an electric bike instead of a motorcycle
4. but, a sharp increase in the cost of bicycle helmets, a good closely related to bicycles, will decrease the quantity demanded for bicycles, especially if there is a law requiring helmets
  - A. a good that tends to be consumed together with another good is called a **complementary good** and it plays a factor in how much another good made is wanted

**Shifts (Moves) in Demand- Questions**

34. For an inferior good, an increase in consumer income will cause

- (A) the demand curve to shift to the left
- (B) the demand curve to shift to the right
- (C) the short-run supply curve to shift to the right
- (D) the long-run supply curve to shift to the right
- (E) new firms to enter the market in the long run

### Shifts (Moves) in Demand- Questions

34. For an inferior good, an increase in consumer income will cause

nope, since increased income leads to increase D of normal goods and decreased D of others

- (A) the demand curve to shift to the left
- (B) the demand curve to shift to the right
- (C) the short-run supply curve to shift to the right
- (D) the long-run supply curve to shift to the right
- (E) new firms to enter the market in the long run

maybe, but only in the long-run

### **Shifts (Moves) in Demand- Questions**

43. Assume <sup>(workers)</sup>labor and <sup>(machinery)</sup>capital are substitute inputs. A manufacturer will employ more labor if
- (A) the price of labor increases
  - (B) the marginal product of labor decreases
  - (C) the price of capital increases
  - (D) the marginal product of capital increases
  - (E) the product's demand decreases

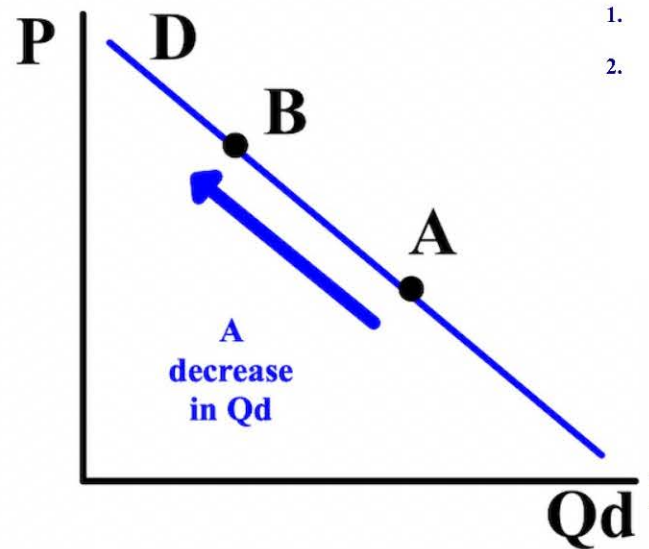
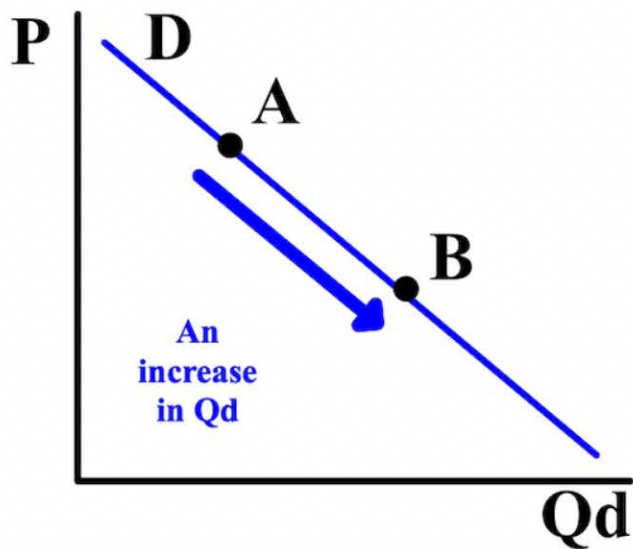
### Shifts (Moves) in Demand- Questions

43. Assume labor and capital are substitute inputs. A manufacturer will employ more labor if

- (A) the price of labor increases
  - (B) the marginal product of labor decreases
  - ☒ (C) the price of capital increases
  - (D) the marginal product of capital increases
  - (E) the product's demand decreases
- why hire more workers  
if they are more  
expensive than machines
- if you are  
producing  
less  
every time  
you hire  
someone,  
why hire?
- if you are  
producing more  
every time you  
buy something for  
your business,  
why not hire more
- nope, why  
hire more  
people if D  
decreased

## **Movement Along vs. Shifts of the Demand Curve**

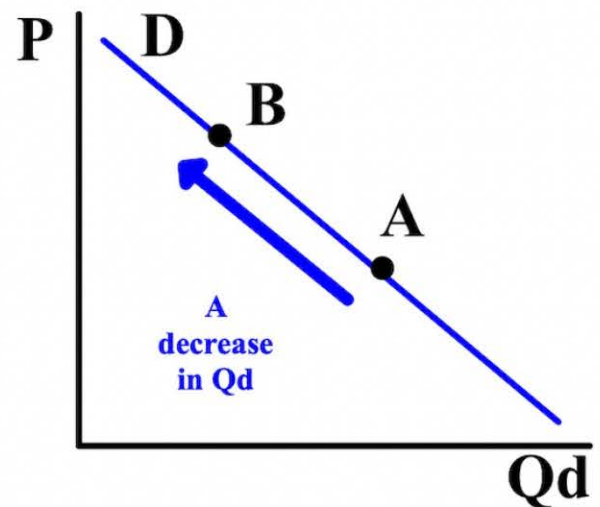
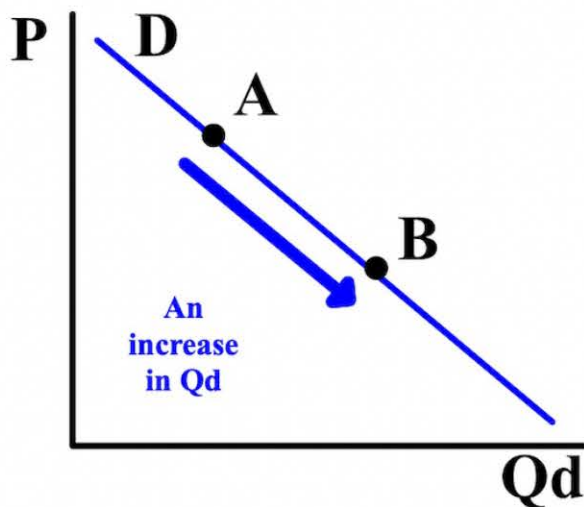
1. when graphing demand (D) curves, it is very important to distinguish shifts of the demand curve from movements along the demand curve
2. a **movement along** the demand curve occurs when the quantity demanded (Qd) changes as a result of a change in the price (P) of the good or service



1.  
2.

### **Movement Along vs. Shifts of the Demand Curve (cont.)**

1. for example, if the price of bicycles decreases for any reason, the quantity demanded ( $Q_d$ ) by consumers will show a movement along the demand curve to the right from point A to point B (left graph)
2. if the price of bicycles increases for any reason, the quantity demanded by consumers will show a movement along the demand curve to the left from point A to point B (right graph)



### **Movement Along vs. Shifts of the Demand Curve- Questions**

5. Which of the following will most likely happen in the market for good X if the price of good X decreases?
- (A) The supply of good X will decrease.
  - (B) The demand for good X will increase.
  - (C) The quantity demanded for good X will increase.
  - (D) The demand will decrease and the supply will increase.
  - (E) The quantity supplied for good X will increase.

### Movement Along vs. Shifts of the Demand Curve- Questions

5. Which of the following will most likely happen in the market for good X if the price of good X decreases?

- (A) The supply of good X will decrease. ← only in the long-run
  - (B) The demand for good X will increase. ← less specific than Qd
  - ☒ (C) The quantity demanded for good X will increase.
  - (D) The demand will decrease and the supply will increase.
  - (E) The quantity supplied for good X will increase. ← only in the long-run
- ↖ D will increase in P decreases

**Movement Along vs. Shifts of the Demand Curve- Questions**

35. Which of the following will cause the demand curve for good X to shift to the right?

- (A) An increase in the price of good Z,  
a complement to good X
- (B) An increase in the price of good Y,  
a substitute for good X
- (C) An increase in the consumer's income,  
if good X is an inferior good
- (D) A decrease in the price of good X
- (E) An increase in the supply of good X

### Movement Along vs. Shifts of the Demand Curve- Questions

35. Which of the following will cause the demand curve for good X to shift to the right?

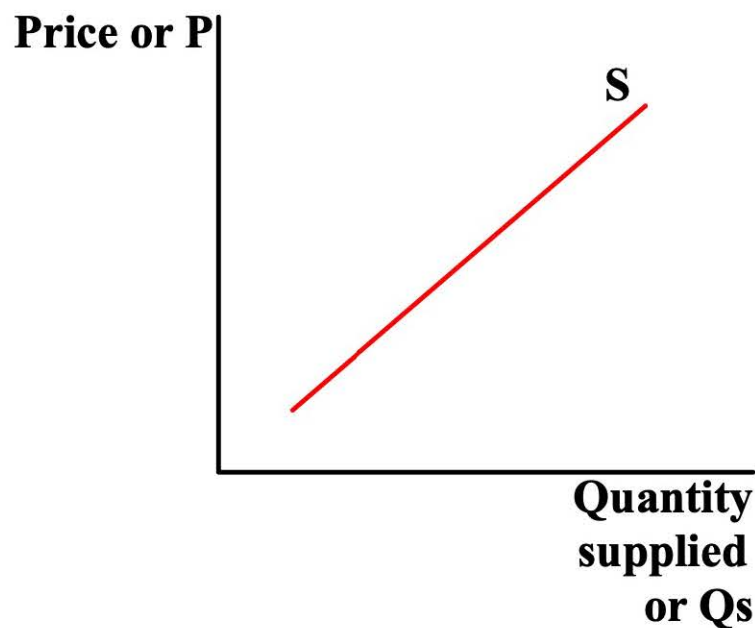
- (A) An increase in the price of good Z,  
a complement to good X as complements, when one P changes, the D for both will decrease
- ☒ (B) An increase in the price of good Y,  
a substitute for good X when income increases, D for inferior goods decreases and D for normal goods increase
- (C) An increase in the consumer's income,  
if good X is an inferior good this would lead to a movement along the line, not a shift
- (D) A decrease in the price of good X this would only happen in the long-run after D increased
- (E) An increase in the supply of good X

## **Supply**

1. **supply** (S) is a relationship between two economic variables (factors): 1) the **price** (P) of a particular good and 2) the quantity supplied (Qs) of a particular good (how much firms are willing to sell at a specific price)
2. the **law of supply** states that the higher the price of a good is in a market, the higher the quantity supplied of the good by sellers, and the lower the price of a good, the lower the quantity supplied
3. when the price for a product increases, suppliers will attempt to maximize their profits by increasing the quantity supplied for sale before quantity demand starts to fall
4. when the price for a product decreases, suppliers will attempt to minimize their losses by producing less

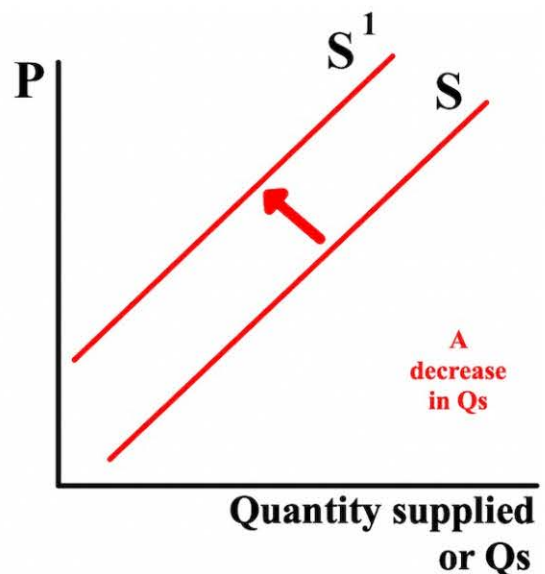
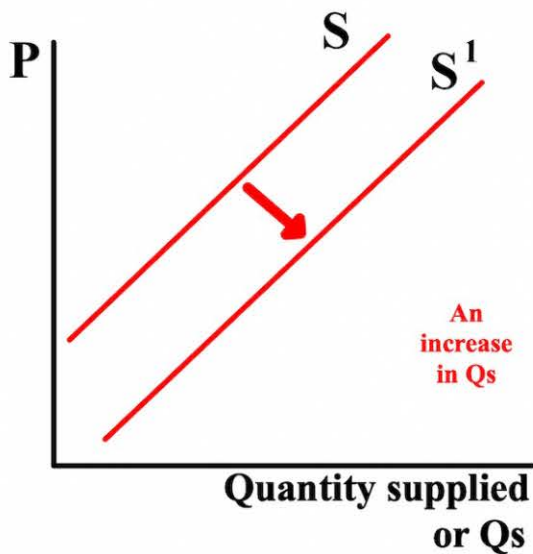
## The Supply Curve

1. the graph is a **supply curve**
  - A. it represents the law of supply graphically
2. the market demand curve slopes upward left to right and shows the **market quantity** (the quantity supplied of goods and services at any given price)



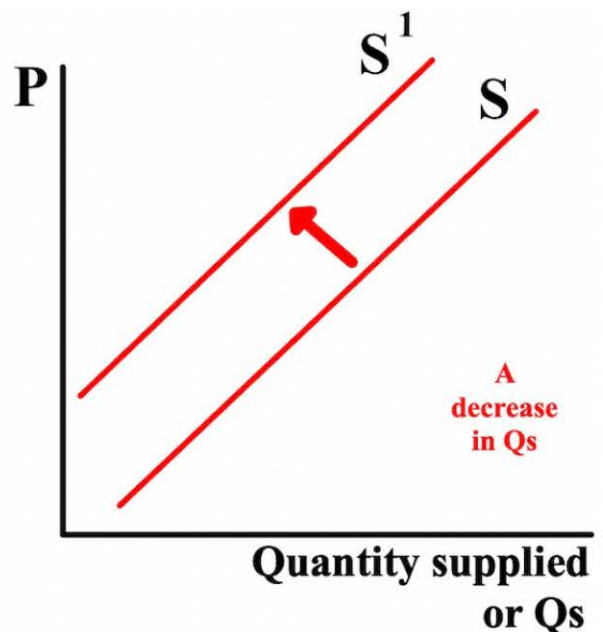
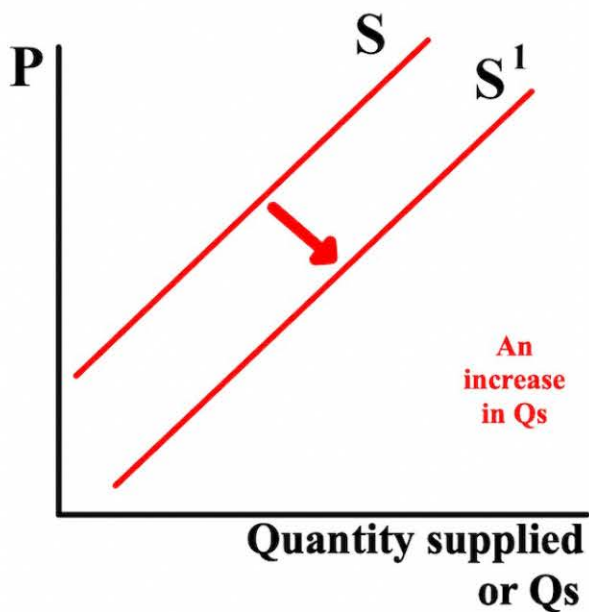
## Shifts in Supply

1. the quantity supplied ( $Q_s$ ) of a good or service that firms/businesses produce is affected by the price ( $P$ ) and availability of inputs/resources used in production, the number of firms in the market, technology, government taxes and subsidies, and regulations, and the expectations of future prices and profit



### Shifts in Supply (cont.)

1. an increase in quantity supplied shifts the supply curve down/to the right (left graph)
2. a decrease in quantity supplied shifts the supply curve up/to the left (right graph)







### **Shifts in Supply- Questions**

19. Which of the following would cause the supply curve for notebook computers to shift to the right?
- (A) An increase in the price of notebook computers
  - (B) An increase in the number of firms producing notebook computers
  - (C) An increase in the wages of workers in the notebook-computer industry
  - (D) A decrease in the price of notebook computers
  - (E) A decrease in the supply of notebook computers

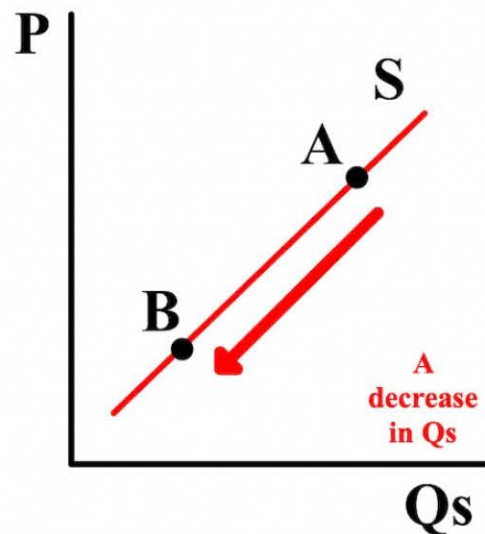
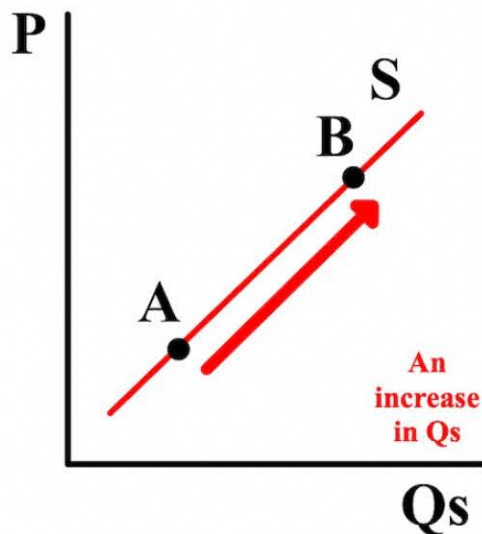
### Shifts in Supply- Questions

19. Which of the following would cause the supply curve for notebook computers to shift to the right?

- (A) An increase in the price of notebook computers  an increase in P leads to a movement along S, not a shift
- ☒ (B) An increase in the number of firms producing notebook computers
- (C) An increase in the wages of workers in the notebook-computer industry  an increase in wages, an input, would cause less computers to be supplied
- (D) A decrease in the price of notebook computers  a decrease in P leads to a movement along S, not a shift
- (E) A decrease in the supply of notebook computers  a decrease in S leads to a shift to the right

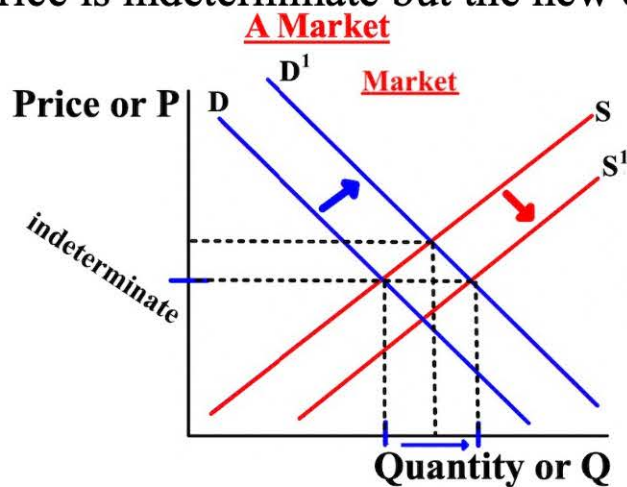
## Movement Along versus Shifts of the Supply Curve

1. when graphing demand (S) curves, it is very important to distinguish shifts of the supply curve from movements along the demand curve
2. just like with the demand curve, a **movement along** the supply curve occurs when the quantity demanded ( $Q_d$ ) changes as a result of a change in the price ( $P$ ) of the good or service



## Double Shifts- Supply and Demand

1. **double-shifts** occur when both demand and supply shift at the same time
  - A. when this happens, both demand and supply can increase or decrease or one can increase while the other decreases
  - B. when this happens, of the new quantity (Q) or price (P), one of them can be determined but the other will be indeterminate
    1. the only way to know is to graph the double-shift
  - C. below, the new price is indeterminate but the new quantity can be determined



### **Double Shifts- Supply and Demand- Questions**

56. If both supply and demand for wheat increase, the equilibrium price and quantity of wheat will most likely change in which of the following ways?

#### Price

- (A) Decrease
- (B) Decrease
- (C) Indeterminate
- (D) Increase
- (E) Increase

#### Quantity

- Decrease
- Increase
- Increase
- Decrease
- Indeterminate

### **Double Shifts- Supply and Demand- Questions**

56. If both supply and demand for wheat increase, the equilibrium price and quantity of wheat will most likely change in which of the following ways?

Price

Quantity

(A) Decrease

Decrease

(B) Decrease

Increase

☒ (C) Indeterminate

Increase

(D) Increase

Decrease

(E) Increase

Indeterminate

## **Market Equilibrium: Combining Supply and Demand**

1. markets determines prices

A. buyers ( $Q_d$ ) and sellers ( $Q_s$ ) interact

- i. a price that both determine and accept comes about
- ii. the prices are high enough for the sellers to cover their costs and make a profit and low enough for the buyers to afford and feel like they are benefiting from the purchase

*please take out  
your multiple  
choice practice;  
go to #18*

### Finding the Market Price

1. looking at the bicycle price (P) of \$160 below, the quantity demanded (Qd) by consumers (14 bicycles) is greater than the quantity supplied (Qs) by firms (4 bicycles); there is a shortage of 10 bicycles (14-4)

A. a **shortage**, or **excess demand**, is a situation in which the quantity demanded is greater than the quantity supplied

Price	Quantity Supplied	Price	Quantity Demanded
\$160	4	\$160	14
\$180	7	\$180	11
\$200	9	\$200	9
\$220	11	\$220	7
\$240	13	\$240	5
\$260	15	\$260	3
\$280	16	\$280	2
\$300	17	\$300	1

### Finding the Market Price (cont.)

1. looking at the bicycle price (P) of \$260 below, the quantity demanded (Qd) by consumers (3 bicycles) is less than the quantity supplied (Qs) by firms (15 bicycles); there is a surplus of 12 bicycles (15-3)

A. a **surplus**, or **excess supply**, is a situation in which the quantity supplied is greater than the quantity demanded

<u>Price</u>	<u>Quantity Supplied</u>	<u>Price</u>	<u>Quantity Demanded</u>
\$160	4	\$160	14
\$180	7	\$180	11
\$200	9	\$200	9
\$220	11	\$220	7
\$240	13	\$240	5
<b>\$260</b>	<b>15</b>	<b>\$260</b>	<b>3</b>
\$280	16	\$280	2
\$300	17	\$300	1

**Finding the Market Price (cont.)**

18. If an unusually cold summer destroyed a large portion of the bee population, the equilibrium price and quantity of honey produced by bees will most likely change in which of the following ways?

<u>Price</u>	<u>Quantity</u>
(A) Increase	Increase
(B) Increase	Decrease
(C) Increase	No change
(D) Decrease	Decrease
(E) No change	Decrease

**Finding the Market Price (cont.)**

18. If an unusually cold summer destroyed a large portion of the bee population, the equilibrium price and quantity of honey produced by bees will most likely change in which of the following ways?

<u>Price</u>	<u>Quantity</u>
(A) Increase	Increase
<input checked="" type="radio"/> (B) Increase	Decrease
(C) Increase	No change
(D) Decrease	Decrease
(E) No change	Decrease

when S decreases, P increases  
and suppliers produce less

### **Finding the Market Price (cont.)**

3. Assume that the market for lemonade is perfectly competitive and currently in equilibrium. Lemons are key ingredients in lemonade. If the price of lemons decreases, how will the lemonade market be affected?
- (A) Supply will shift leftward, increasing the equilibrium price and decreasing the equilibrium quantity of lemonade.
  - (B) Supply will shift rightward, increasing the equilibrium price and increasing the equilibrium quantity of lemonade.
  - (C) Supply will shift rightward, decreasing the equilibrium price and increasing the equilibrium quantity of lemonade.
  - (D) Demand will shift leftward, decreasing the equilibrium price and decreasing the equilibrium quantity of lemonade.
  - (E) Demand will shift rightward, increasing the equilibrium price and increasing the equilibrium quantity of lemonade.

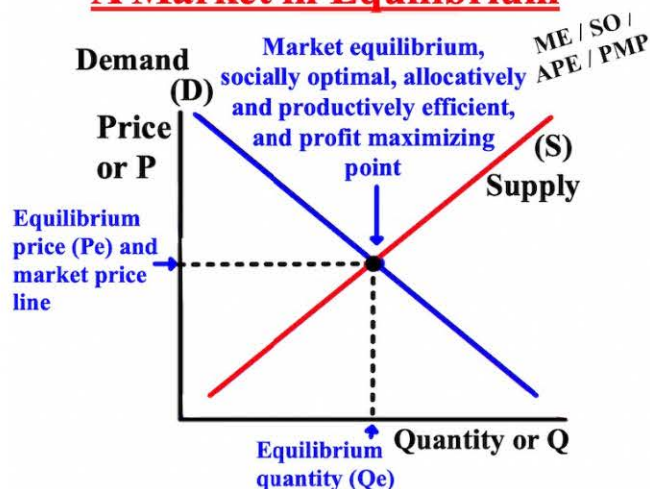
## Finding the Market Price (cont.)

3. Assume that the market for lemonade is perfectly competitive and currently in equilibrium. Lemons are key ingredients in lemonade. If the price of lemons decreases, how will the lemonade market be affected?
- (A) Supply will shift leftward, increasing the equilibrium price and decreasing the equilibrium quantity of lemonade. ← when inputs decrease in P, S increases
  - (B) Supply will shift rightward, increasing the equilibrium price and increasing the equilibrium quantity of lemonade. ← when inputs decrease in P, S increases which leads to a decrease in price for consumers
  - ☒ (C) Supply will shift rightward, decreasing the equilibrium price and increasing the equilibrium quantity of lemonade.
  - (D) Demand will shift leftward, decreasing the equilibrium price and decreasing the equilibrium quantity of lemonade. ← this will happen in the long-run, but when P decreases, D increases
  - (E) Demand will shift rightward, increasing the equilibrium price and increasing the equilibrium quantity of lemonade. ← this will happen in the long-run but when P increases, D decreases

## Finding the Equilibrium with a Supply and Demand Diagram

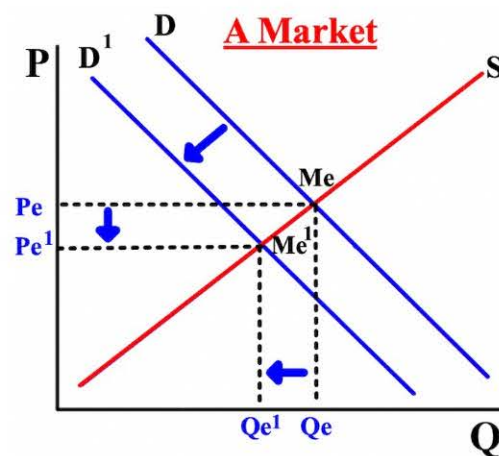
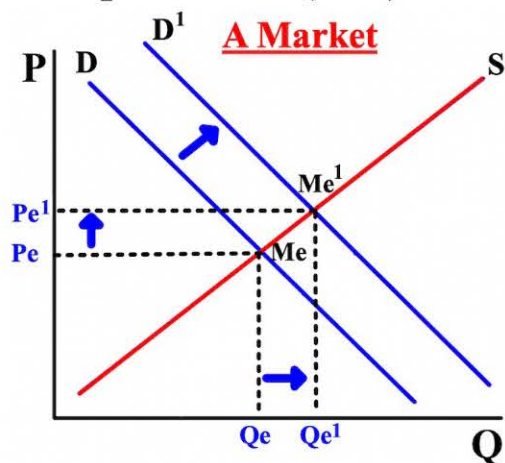
1. the equilibrium price ( $P_e$ ) is the price at equilibrium (the price where supply (S) and demand (D) meet)
2. the equilibrium quantity ( $Q_e$ ) is the quantity at equilibrium (the quantity where supply (S) and demand (D) meet)
3. often in our class, a market supply (S) and demand (D) diagram will not have any numerical data; unless you are told to include numbers, don't

### A Market in Equilibrium



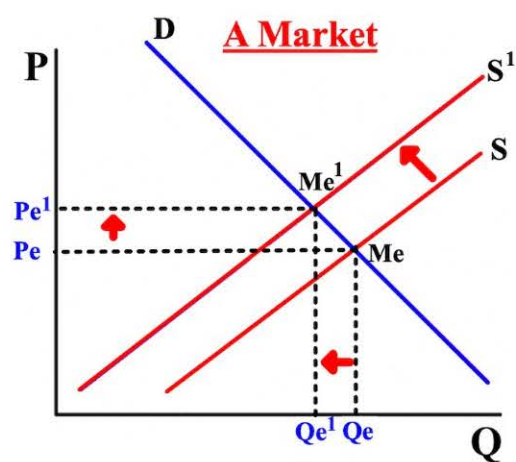
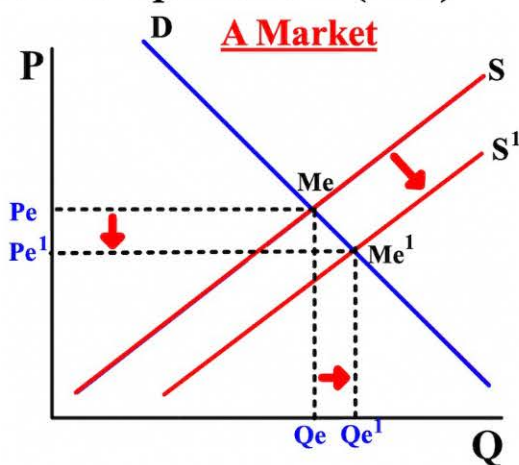
## Effects of Changes (shifts) in Demand

1. the graphs below show the effects of an increase in quantity demanded ( $Q_d$ ) (left graph) and a decrease in quantity demanded (right graph) in a market
  - A. the demand curves before and after the shift are labeled  $D$  for the old demand curve and  $D^1$  for the new demand curve
  - B. with a shift and a new demand curve, there is a new intersection and, therefore, a new equilibrium quantity ( $Q_e^1$ ), equilibrium price ( $P_e^1$ ), and market equilibrium ( $Me^1$ )



## Effects of Changes (shifts) in Supply

1. the graphs below show the effects of an increase in quantity supplied ( $Q_s$ ) (left graph) and a decrease in quantity supplied (right graph)
  - A. the supply curves before and after the shift are labeled  $S$  for the old supply curve and  $S^1$  for the new supply curve
  - B. with a shift and a new supply curve, there is a new intersection and, therefore, a new equilibrium quantity ( $Q_e^1$ ), equilibrium price ( $P_e^1$ ), and market equilibrium ( $Me^1$ )



## **Interference With Market Prices**

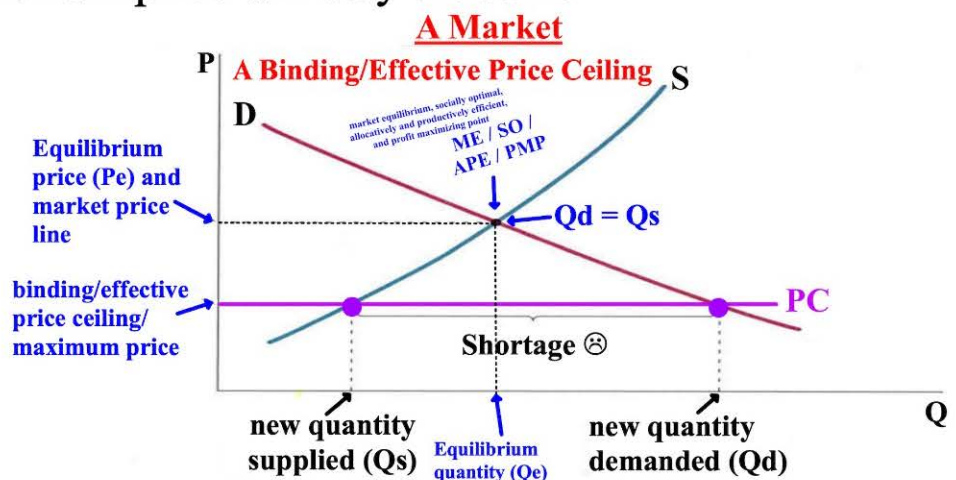
1. in free market economies, demand (D) and supply (S) usually determine the price (P) and quantity supplied (Qs) without government control, called freely determined prices
2. in socialist and communist countries, governments attempt to make the decisions and to control market prices, referred to as **price controls**

## **Price Ceilings and Price Floors**

1. there are two types of government price (P) controls
  - A. controls can stipulate a **price ceiling**, or a maximum price at which a good can be bought and sold, like price controls on rental apartments
    - i. if the government sets a price ceiling, the product will be cheaper and more consumers will be able to purchase it, resulting in a shortage of the good in the market
  - B. controls can also stipulate a **price floor**, or a minimum price at which a good can be bought and sold, like workers' wages
    - i. if the government sets a price floor, the product will be more expensive and fewer consumers will be able to purchase it, resulting in a surplus of the good in the market

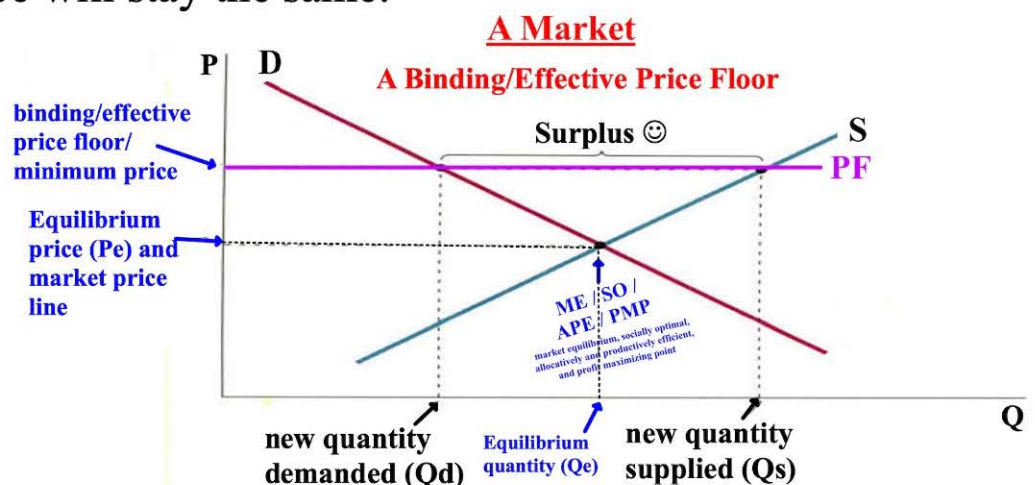
## Shortages and Problems Resulting from Price Ceilings (cont.)

1. if a price ceiling is set below the equilibrium price ( $P_e$ ), the price ceiling is **binding** (also referred to as mandatory or effective) since the equilibrium price ( $P_e$ ) and market equilibrium ( $Me$ ) can't be reached
2. if the price ceiling is set above the equilibrium price and market equilibrium, then the price ceiling doesn't matter since the price ceiling is above the equilibrium price and market equilibrium; the price ceiling is not binding and the equilibrium price will stay the same



## Surpluses and Problems Resulting from Price Floors (cont.)

1. if a price floor is set above the equilibrium price ( $P_e$ ), the price floor is **binding** (also referred to as mandatory or effective) since the equilibrium price ( $P_e$ ) and market equilibrium ( $Me$ ) can't be reached
2. if the price floor is set below the equilibrium price and market equilibrium, then the price floor doesn't matter since the price floor is below the equilibrium price and market equilibrium; the price floor is not binding and the equilibrium price will stay the same.



## **Surpluses and Problems Resulting from Price Controls- Questions**

2. If an effective rent ceiling is eliminated, which of the following is most likely to occur in the rental housing market?
- (A) An increase in the demand for housing, resulting in a decrease in the quantity of housing supplied
  - (B) An increase in rents, resulting in an increase in the quantity of housing supplied
  - (C) An increase in the demand for housing, resulting in an increase in the quantity of housing demanded
  - (D) A decrease in rents, resulting in an increase in the quantity of housing supplied
  - (E) A decrease in the demand for housing, resulting in an increase in the quantity of housing supplied
-

## Surpluses and Problems Resulting from Price Controls- Questions

2. If an effective rent ceiling is eliminated, which of the following is most likely to occur in the rental housing market?
- (A) An increase in the demand for housing,  $\leftarrow$  **D would decrease because P increases**  
resulting in a decrease in the quantity of housing supplied
  - ☒ (B) An increase in rents, resulting in an increase in the quantity of housing supplied
  - (C) An increase in the demand for housing,  $\leftarrow$  **D would decrease, not increase**  
resulting in an increase in the quantity of housing demanded
  - (D) A decrease in rents, resulting in an increase in the quantity of housing supplied  $\leftarrow$  **a decrease in rents = a decrease in Qs**
  - (E) A decrease in the demand for housing, resulting in an increase in the quantity of housing supplied  $\leftarrow$  **a decrease in D = a decrease in Qs**

### **Surpluses and Problems Resulting from Price Controls- Questions**

<u>Price per Gallon</u>	<u>Quantity Supplied</u>	<u>Quantity Demanded</u>
\$2.50	11,000	17,000
\$2.75	12,000	16,000
\$3.00	13,000	15,000
\$3.25	14,000	14,000
\$3.50	15,000	13,000
\$3.75	16,000	12,000

3. The table above shows the quantity of gasoline supplied and demanded at various prices in a country. If the government sets a price floor of \$2.75 on a gallon of gasoline, what is the price per gallon?
- (A) \$2.75
  - (B) \$3.00
  - (C) \$3.25
  - (D) \$3.50
  - (E) \$3.75

## Surpluses and Problems Resulting from Price Controls- Questions

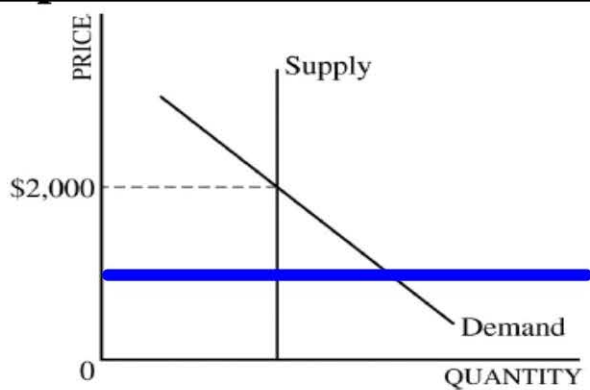
<u>Price per Gallon</u>	<u>Quantity Supplied</u>	<u>Quantity Demanded</u>
\$2.50	11,000	17,000
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\$3.50	15,000	13,000
\$3.75	16,000	12,000

3. The table above shows the quantity of gasoline supplied and demanded at various prices in a country. If the government sets a price floor of \$2.75 on a gallon of gasoline, what is the price per gallon?

- (A) \$2.75
- (B) \$3.00
- ☒ (C) \$3.25
- (D) \$3.50
- (E) \$3.75

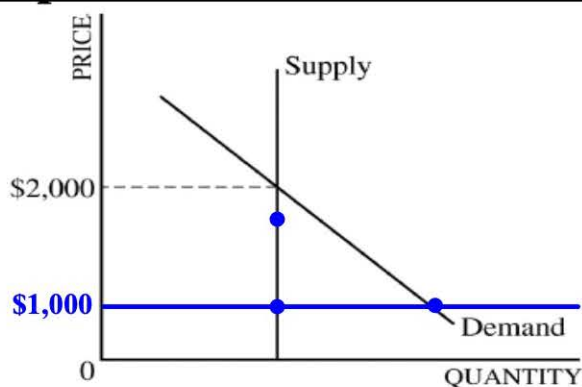
**a price floor of \$2.75  
would be non-binding/  
ineffective because you  
can still reach the Me of  
\$3.25**

## Surpluses and Problems Resulting from Price Controls- Questions



33. The diagram above depicts demand and supply curves in a city's rental housing market. If a price ceiling of \$1,000 is imposed on the market, which of the following will occur?
- (A) There will be a surplus of rental housing in the city.
  - (B) The demand curve for housing will shift to the right.
  - (C) The supply curve for housing will shift to the right.
  - (D) The quantity of rental housing supplied will decrease.
  - (E) The quantity of rental housing demanded will increase.

## Surpluses and Problems Resulting from Price Controls- Questions



33. The diagram above depicts demand and supply curves in a city's rental housing market. If a price ceiling of \$1,000 is imposed on the market, which of the following will occur?

- (A) There will be a ~~surplus~~ of rental housing in the city. **shortage**
- (B) The demand curve for housing will shift to the right. **← Qd decreases because of P so it is a movement along the line, not a shift**
- (C) The supply curve for housing will shift to the right. **← nope, when P decreases so does S**
- (D) The quantity of rental housing supplied will decrease. **← nope, when P decreases so does S**
- ☒ The quantity of rental housing demanded will increase.

**Surpluses and Problems Resulting from Price Controls- Questions**

6. If a government eliminated an effective price floor in a market, all of the following would occur EXCEPT:

- (A) The surplus would be eliminated.
- (B) The price would decrease.
- (C) The quantity supplied would decrease.
- (D) The quantity demanded would increase.
- (E) The supply of the good would increase.

### Surpluses and Problems Resulting from Price Controls- Questions

6. If a government eliminated an effective price floor in a market, all of the following would occur EXCEPT:

- (A) The surplus would be eliminated.
- (B) The price would decrease.
- (C) The quantity supplied would decrease.
- (D) The quantity demanded would increase.
- ☒ (E) The supply of the good would increase.

all true  
because  
now you  
can reach  
Me

decrease

### Microeconomics Do-Now

Please do this:

1. Draw a market in equilibrium with a binding/effective/mandatory price ceiling. Label it PC. Label the equilibrium quantity  $Q_e$ , the equilibrium price  $P_e$ , and the market equilibrium  $M_e$ . Label the new quantity demanded  $Q_d$  and new quantity supplied  $Q_s$ . Is there now a surplus or shortage in the market?
2. Draw a market in equilibrium with a binding/effective/mandatory price floor. Label it PF. Label the equilibrium quantity  $Q_e$ , the equilibrium price  $P_e$ , and the market equilibrium  $M_e$ . Label the new quantity demanded  $Q_d$  and new quantity supplied  $Q_s$ . Is there now a surplus or shortage in the market?
3. Draw a production possibilities curve, showing constant opportunity costs, with pears on the vertical axis and wheat on the horizontal. Next, show the impact if there is an increase in the production of wheat only.
4. Draw a market in equilibrium. Label the equilibrium quantity  $Q_e$ , the equilibrium price  $P_e$ , and the market equilibrium  $M_e$ . Next, show the impact on the market if production costs increase. Label the new equilibrium quantity  $Q_{e1}$ , the equilibrium price  $P_{e1}$ , and the market equilibrium  $M_{e1}$ . Use arrows to indicate what happened to the price and the quantity in the market.

1.

l  
l  
l  
b  
p  
m

2.

b  
p  
m  
E  
p  
u  
i

Pea

p  
Pe1  
Pe

### **Macro/Micro Do-Now**

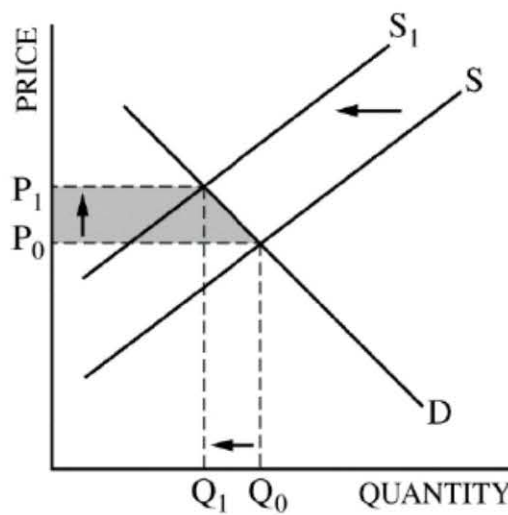
**Please do this:**

**1.** (b) Bananas are an input for muffins.

- (i) Draw a correctly labeled graph of the market for muffins indicating the equilibrium price and quantity, labeled  $P_0$  and  $Q_0$ , respectively.
- (ii) On the graph drawn in part (b)(i), show the impact of an increase in the price of bananas on the muffin market, labeling the new equilibrium price and quantity  $P_1$  and  $Q_1$ , respectively.

### Macro/Micro Do-Now

1.  
points:

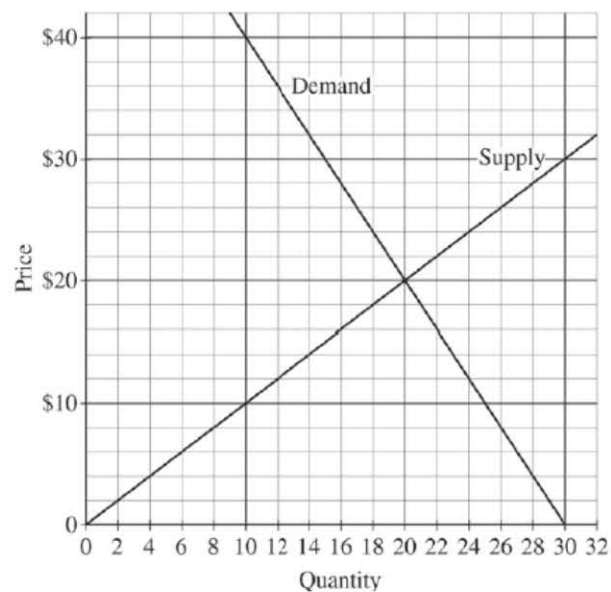


- One point is earned for drawing a correctly labeled graph and for showing the equilibrium price and quantity, labeled  $P_0$  and  $Q_0$ , respectively.
- One point is earned for shifting the supply curve to the left and for showing the new equilibrium price and quantity, labeled  $P_1$  and  $Q_1$ , respectively.

## Macro/Micro Do-Now

**Please do this:**  
**2.**

The graph below shows the market for widgets. The government is considering intervening in this market.

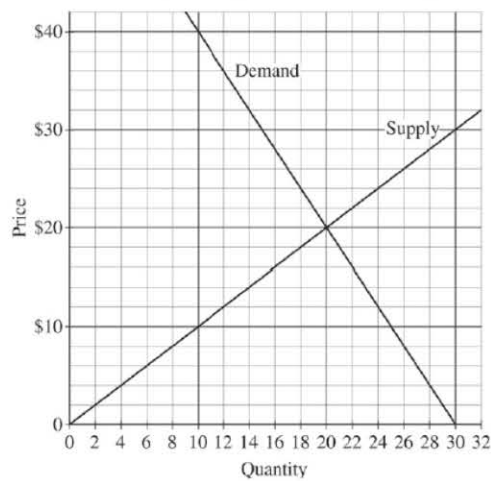


- ~~(a) Calculate the total producer surplus at the market equilibrium price and quantity. Show your work.~~
- (b) If the government imposes a price floor at \$16, is there a shortage, a surplus, or neither? Explain.
- (c) If instead the government imposes a price ceiling at \$12, is there a shortage, a surplus, or neither? Explain.

2.

## Macro/Micro Do-Now

The graph below shows the market for widgets. The government is considering intervening in this market.



~~(a) Calculate the total producer surplus at the market equilibrium price and quantity. Show your work.~~

(b) If the government imposes a price floor at \$16, is there a shortage, a surplus, or neither? Explain.

(c) If instead the government imposes a price ceiling at \$12, is there a shortage, a surplus, or neither? Explain.

(b) 1 point:

- One point is earned for stating that imposing a price floor at \$16 is ineffective and will not create a surplus or a shortage in the market because it is set below the equilibrium price, or because it is not binding.

(c) 1 point:

- One point is earned for stating that imposing a price ceiling at \$12 will create a shortage because quantity demanded is greater than quantity supplied, or because the price ceiling is binding.

### **Macro/Micro Do-Now**

**Please do this:**

- 3.** The markets for bananas, muffins, and coffee are interrelated, and each market is perfectly competitive.
- (a) In the market for bananas, the equilibrium price is \$1.00 per pound, and the equilibrium quantity is 1,000 pounds per week. Suppose the government imposes a price floor on bananas at \$1.20 per pound, causing the quantity supplied to increase to 1,500 pounds per week.
- (i) Would the price floor result in a shortage, a surplus, or neither? Explain.

### **Macro/Micro Do-Now**

**3.**

- One point is earned for stating that the quantity supplied exceeds the quantity demanded at the price floor or the price floor would result in a surplus because the price floor is binding or effective.