Supply and Demand

Practice

The Demand Schedule

- **Demand schedule**:
  a table that shows the relationship between the price of a good and the quantity demanded
- Example:
  Helen's demand for lattes.
- Notice that Helen's preferences obey the law of demand.
- Construct Helen's demand curve for lattes

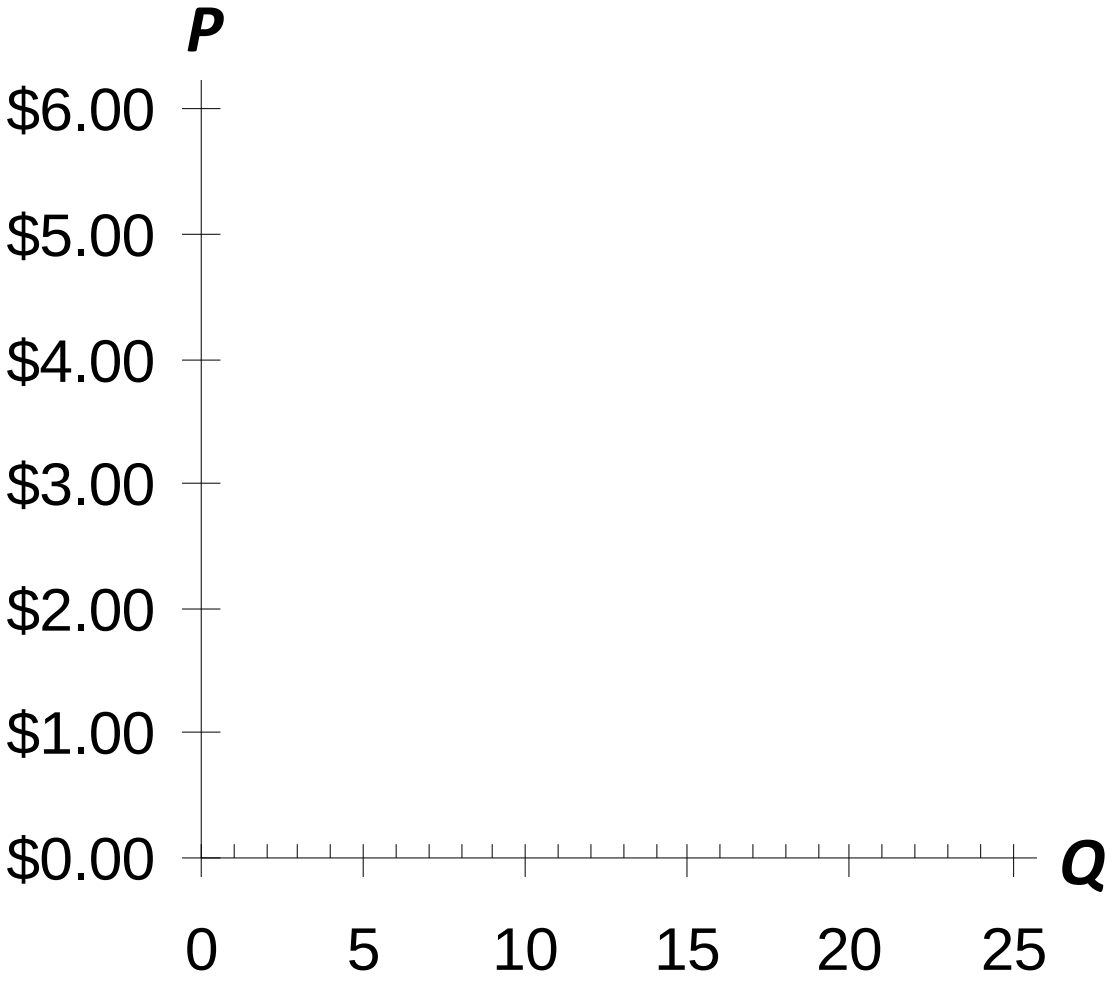
Price of lattes	Quantity of lattes demanded
$0.00	16
1.00	14
2.00	12
3.00	10
4.00	8
5.00	6
6.00	4

Market Demand versus Individual Demand

- The quantity demanded in the market is the sum of the quantities demanded by all buyers at each price.
- Suppose Helen and Ken are the only two buyers in the Latte market. (Q^d = quantity demanded)

Price	Helen's Q^d		Ken's Q^d		Market Q^d
$0.00	16	+	8	=	
1.00	14	+	7	=	
2.00	12	+	6	=	
3.00	10	+	5	=	
4.00	8	+	4	=	
5.00	6	+	3	=	
6.00	4	+	2	=	

The Market Demand Curve for Lattes



P	***Q*^{d}** (Market)
$0.00	
1.00	
2.00	
3.00	
4.00	
5.00	
6.00	

ACTIVE LEARNING 1

Demand Curve

Draw a demand curve for music downloads. What happens to it in each of the following scenarios? Why?

A. The price of iPods falls

B. The price of music downloads falls

C. The price of CDs falls

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The Supply Schedule

- **Supply schedule**:
  A table that shows the relationship between the price of a good and the quantity supplied.
- Example:
  Starbucks' supply of lattes.
- Notice that Starbucks' supply schedule obeys the law of supply.
- Construct Supply curve for Starbucks

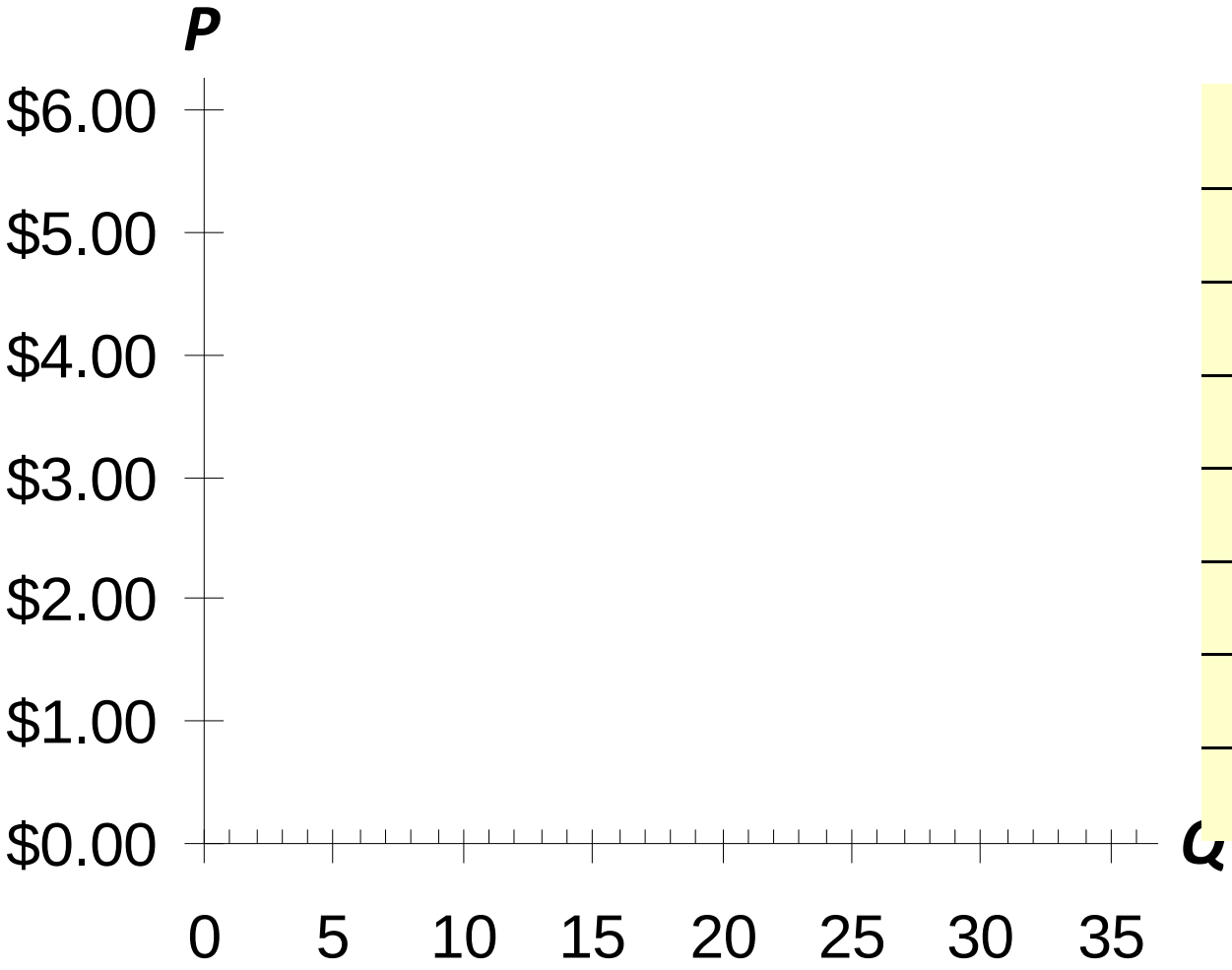
Price of lattes	Quantity of lattes supplied
$0.00	0
1.00	3
2.00	6
3.00	9
4.00	12
5.00	15
6.00	18

Market Supply versus Individual Supply

- The quantity supplied in the market is the sum of the quantities supplied by all sellers at each price.
- Suppose Starbucks and Jitters are the only two sellers in this market. (Q^s = quantity supplied)

Price	Starbucks		Jitters		Market Q^s
$0.00	0	+	0	=	
1.00	3	+	2	=	
2.00	6	+	4	=	
3.00	9	+	6	=	
4.00	12	+	8	=	
5.00	15	+	10	=	
6.00	18	+	12	=	

The Market Supply Curve

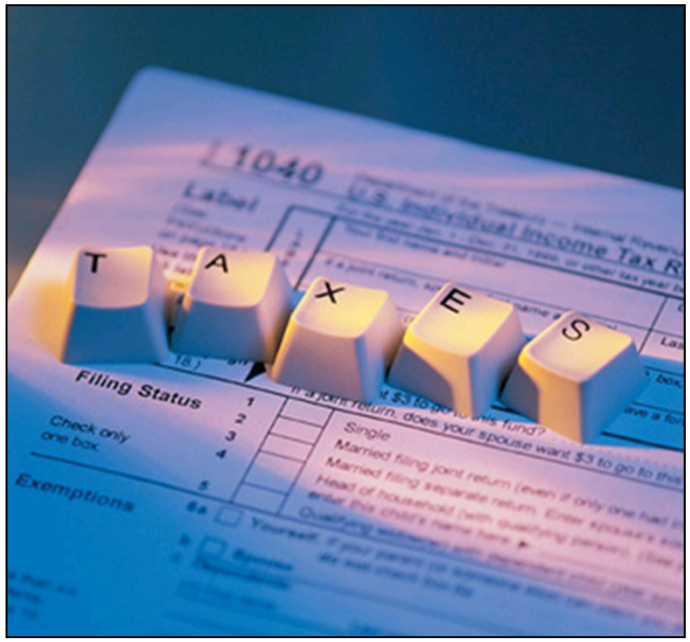


P	Q^S (Market)
$0.00	
1.00	
2.00	
3.00	
4.00	
5.00	
6.00	

ACTIVE LEARNING 2

Supply Curve

Draw a supply curve for tax return preparation software. What happens to it in each of the following scenarios?



A. Retailers cut the price of the software.

B. A technological advance allows the software to be produced at lower cost.

C. Professional tax return preparers raise the price of the services they provide.

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ACTIVE LEARNING 3

Shifts in supply and demand

Use the three-step method to analyze the effects of each event on the equilibrium price and quantity of music downloads.

Event A: A fall in the price of CDs

Event B: Sellers of music downloads negotiate a reduction in the royalties they must pay for each song they sell.

Event C: Events A and B both occur.

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Practice I

Suppose that the supply schedule of Maine lobsters is as follows

Price of lobster (per pound)	Quantity of lobster supplied (pounds)
$25	800
20	700
15	600
10	500
5	400

Suppose that Maine lobsters can be sold only in the United States. The U.S. demand schedule for Maine lobsters is as follows:

Price of lobster (per pound)	Quantity of lobster demanded (pounds)
$25	200
20	400
15	600
10	800
5	1000

- Draw the demand curve and the supply curve for Maine lobsters. What are the equilibrium price and quantity of lobsters?

Now suppose that Maine lobsters can be sold in France. The French demand schedule for Maine lobsters is as follows:

Price of lobster (per pound)	Quantity of lobster demanded (pounds)
$25	100
20	300
15	500
10	700
5	900

- What is the demand schedule for Maine lobsters now that French consumers can also buy them? Draw a supply and demand diagram that illustrates the new equilibrium price and quantity of lobsters. What will happen to the price at which fishermen can sell lobster? What will happen to the price paid by U.S. consumers? What will happen to the quantity consumed by U.S. consumers?

Practice II

Use a diagram to illustrate how.

each of the following events affects the equilibrium price and quantity of pizza.

a) The price of mozzarella cheese rises.
b) The health hazards of hamburgers are widely publicized.
c) The price of tomato sauce falls.
d) The incomes of consumers rise and pizza is an inferior good
e) Consumers expect the price of pizza to fall next week.

Practice III

The accompany table gives the annual U.S. demand and supply schedules for pickup trucks

Price of truck	Quantity of trucks demanded (millions)	Quantity of trucks supplied (millions)
$20,000	20	14
25,000	18	15
30,000	16	16
35,000	14	17
40,000	12	18

- Plot the demand and supply curves using these schedules. Indicate the equilibrium price and quantity on your diagram.
- Suppose the tires used on pick up trucks are found to be defective. What would you expect to happen in the market for pickup trucks? Show this on your diagram.
- Suppose that the U.S. Department of Transportation imposes costly regulations on manufacturers that cause them to reduce supply by one-third at any given price. Calculate and plot the new supply schedule and indicate the new equilibrium price and quantity on your diagram.