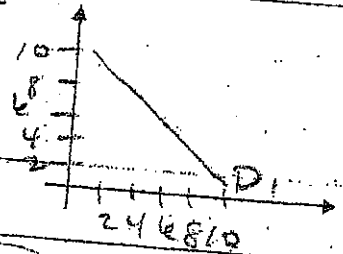
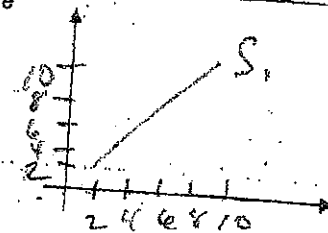


NOTESHEET: DEMAND AND SUPPLY

Key

DEMAND			SUPPLY		
Demand Schedule			Supply Schedule		
	Price	Quantity		Price	Quantity
	2	10		2	2
	4	8		4	4
	6	6		6	6
	8	4		8	8
	10	2		10	10
Demand Curve			Supply Curve		
					

Demand is quantity demanded at different prices.

Supply is quantity supplied at diff. prices

The Law of Demand: As price goes up, quantity demanded goes down.

The Law of Supply: As price goes up, quantity supplied goes up.

What causes a "change in quantity demanded"? ( $\Delta QD$ )  
Price

What causes a "change in quantity supplied"? ( $\Delta QS$ )  
Price

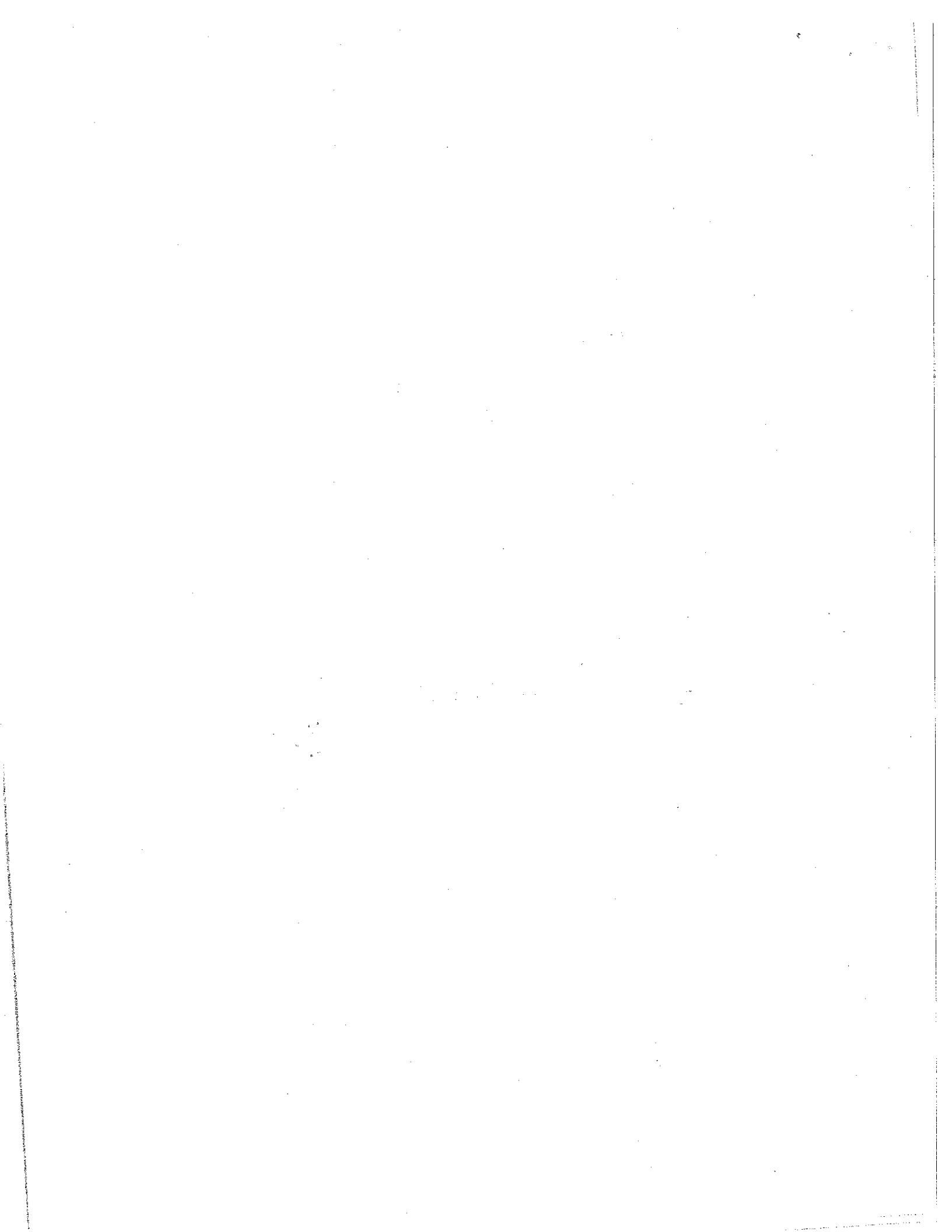
What causes a "change in demand"? ( $\Delta D$ )

What causes a "change in supply"? ( $\Delta S$ )

- 1) Population Changes
- 2) Income Changes
- 3) Tastes/Preferences/Fads
- 4) Substitute/Complimentary Goods
- 5) Future expectations of prices.

- 1) Input Costs - Raw materials, Variable Costs, Fixed, Intermediate
- 2) Technology Changes
- 3) Government Influence
- 4) Global Economy
- 5) Future Expectations of prices - may hold supply to sell later at higher prices.

- 6) # of Suppliers
- 7) Natural Disaster or other event that affects production.

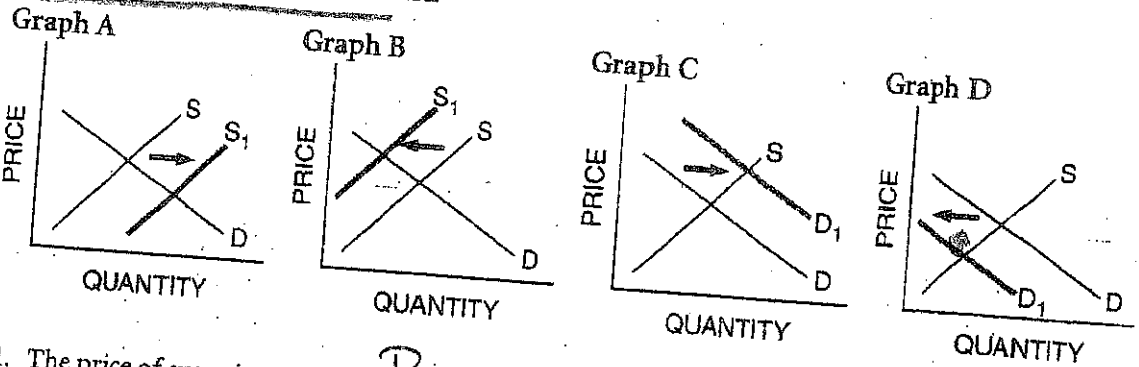


# Shifts in Supply and Demand

## Part A

Fill in the blanks with the letter of the graph that illustrates each situation. You may use a graph more than once.

Figure 15.1  
Jelly Beans Supply and Demand



1. The price of sugar increases. B input cost
2. The price of bubble gum, a close substitute for jelly beans, increases. C
3. A machine is invented that makes jelly beans at a lower cost. A tech
4. The government places a tax on foreign jelly beans, which have a considerable share of the market. B gov. influence
5. The price of soda, a complementary good for jelly beans, increases. D
6. Widespread prosperity allows people to buy more jelly beans. C wealth income

Activity written by Margaret Hamilton, Canton Country Day School, Canton, Ohio; Mary Kohelis, Brooke High School, Wellsburg, W. Va.; John Morton, National Council on Economic Education, New York, N.Y., and Francis Vottero, Shamokin Area High School, Shamokin, Pa. Part B adapted from G. Yohe, *Instructor's Resource Manual for Samuelson and Nordhaus Economics*, 14th ed. (New York: McGraw Hill College Division, 1992), p. 16.

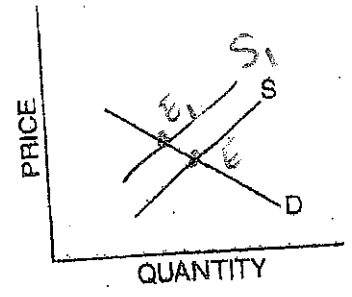
**Part B**

Connecticut ships large amounts of apples to all parts of the United States by rail. Circle the words that show the effects on price and quantity for each situation, and complete the graphs below, showing how a hurricane that destroys apples before they are picked in Connecticut might affect the price and quantity of each commodity. Then provide your reasoning.

7. Apples in Boston

Price: Rises      Unchanged      Falls  
 Quantity:      Rises      Unchanged      Falls  
 Reason:

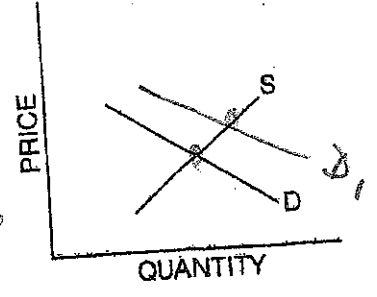
Supply ↓ due to hurricane



8. Land devoted to apple orchards in the state of Washington

Price: Rises      Unchanged      Falls  
 Quantity: Rises      Unchanged      Falls  
 Reason:

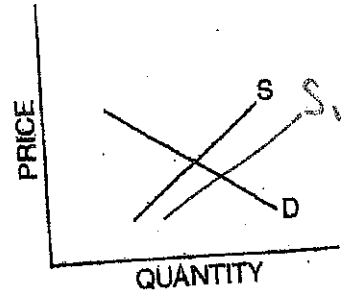
Demand for land to grow apples ↑ due to P↑.



9. Apples grown in the state of Washington

Price:      Rises      Unchanged      Falls  
 Quantity: Rises      Unchanged      Falls  
 Reason:

Supply ↑



19B

✓ substitute goods

## How Markets Allocate Resources

Notice - Demand for Bread, wheat, machinery

The following questions refer to a group of related markets in the United States during a long period of time. Assume that the markets are perfectly competitive and that the supply and demand model is completely applicable. The figures show the supply and demand in each market *before* the assumed change occurs. Trace through the effects of the assumed change, *other things constant*. Work your way from left to right. Shift only one curve in each market. For each market, draw whatever new supply or demand curves are needed, labeling each new curve  $S_1$  or  $D_1$ . Then circle the correct symbol under each diagram ( $\uparrow$  for increase,  $-$  for unchanged, and  $\downarrow$  for decrease). Remember to shift only one curve in each market.

b/c price potato  $\downarrow$

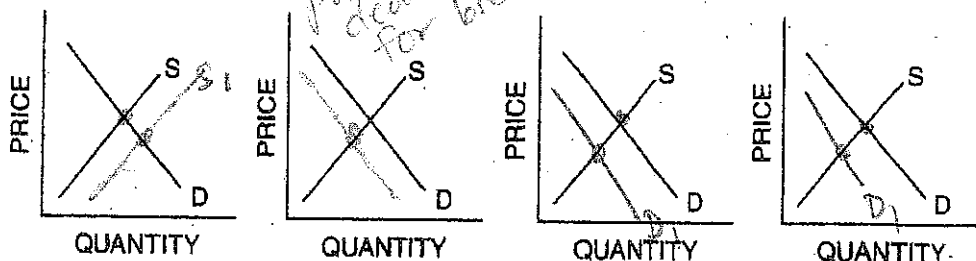
- Assume that a new fertilizer dramatically increases the number of potatoes that can be harvested with no additional labor or machinery. Also assume that this fertilizer does not affect wheat farming and that people are satisfied to eat (either potatoes or bread made from wheat flour.)

substitute



Figure 16.1  
Effects of a New Fertilizer

Since  $P_{potato}$   $\downarrow$ ,  
potatoes,  
demand for bread  $\downarrow$



complementary goods

	Potatoes	Bread	Wheat	Wheat Harvesting Machinery
Demand:	$\uparrow$ <u>—</u> $\downarrow$	$\uparrow$ — $\downarrow$	$\uparrow$ — $\downarrow$	$\uparrow$ — $\downarrow$
Supply:	$\uparrow$ — $\downarrow$	$\uparrow$ <u>—</u> $\downarrow$	$\uparrow$ <u>—</u> $\downarrow$	$\uparrow$ <u>—</u> $\downarrow$
Equilibrium price:	$\uparrow$ — $\downarrow$	$\uparrow$ — $\downarrow$	$\uparrow$ — $\downarrow$	$\uparrow$ — $\downarrow$
Equilibrium quantity:	$\uparrow$ — $\downarrow$	$\uparrow$ — $\downarrow$	$\uparrow$ — $\downarrow$	$\uparrow$ — $\downarrow$

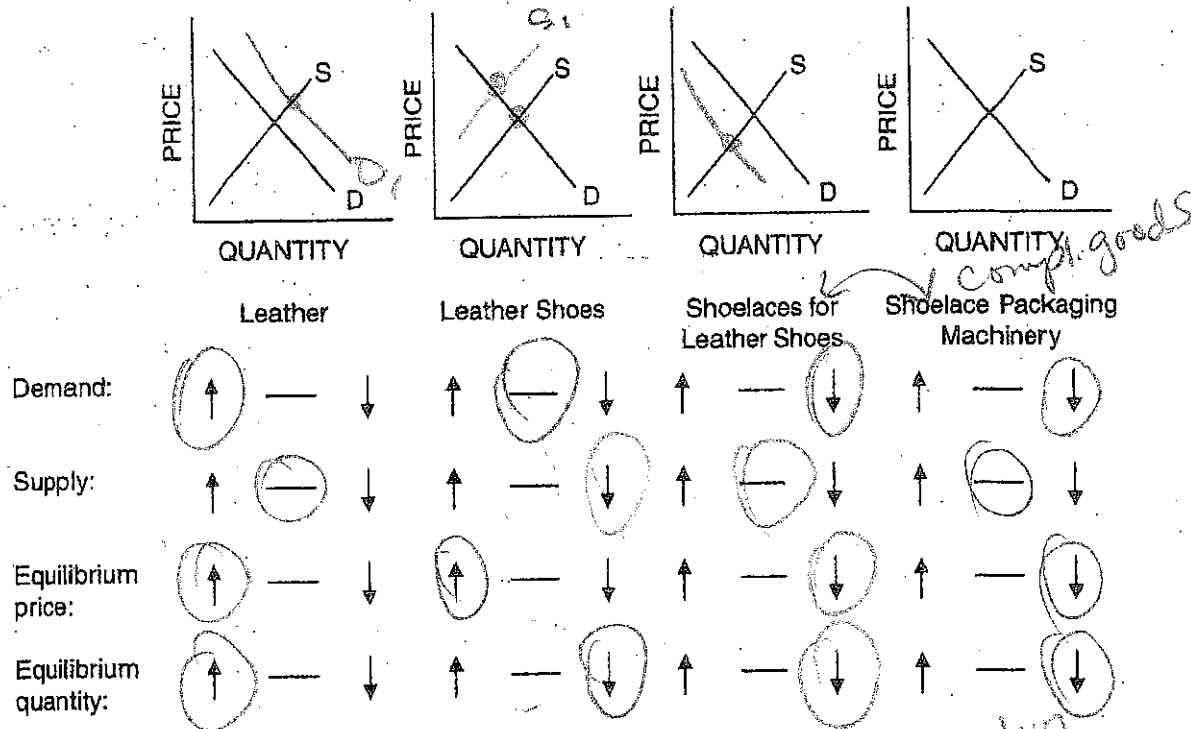
19c

Adapted from Phillip Saunders, *Introduction to Microeconomics: Student Workbook*, 18th ed. (Bloomington, Ind., 1998).  
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2. Assume people's tastes change and there is an increase in the demand for briefcases and luggage made of leather. How would this affect the leather market and related markets? Draw the new curves and circle the appropriate symbols in all four markets.



Figure 16.2  
Effects of Increased Demand for Briefcases and Luggage



*Leather = input*  
*Shoelaces = complimentary good*

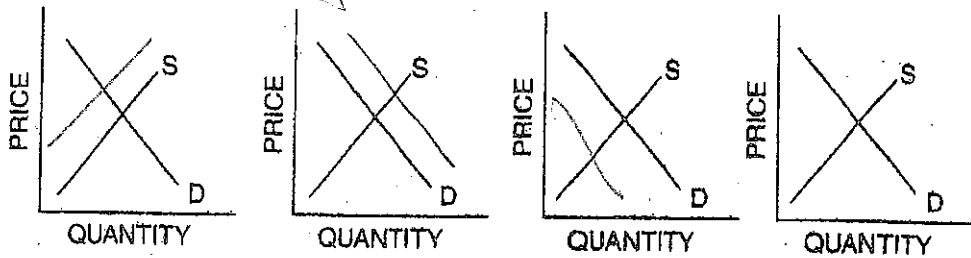
19D

3. Assume that a heavy frost destroys half the world's coffee crop and that people use more cream in coffee than they do in tea.



Figure 16.3  
Effects of a Loss of Coffee Crop

*tea = substituting good*

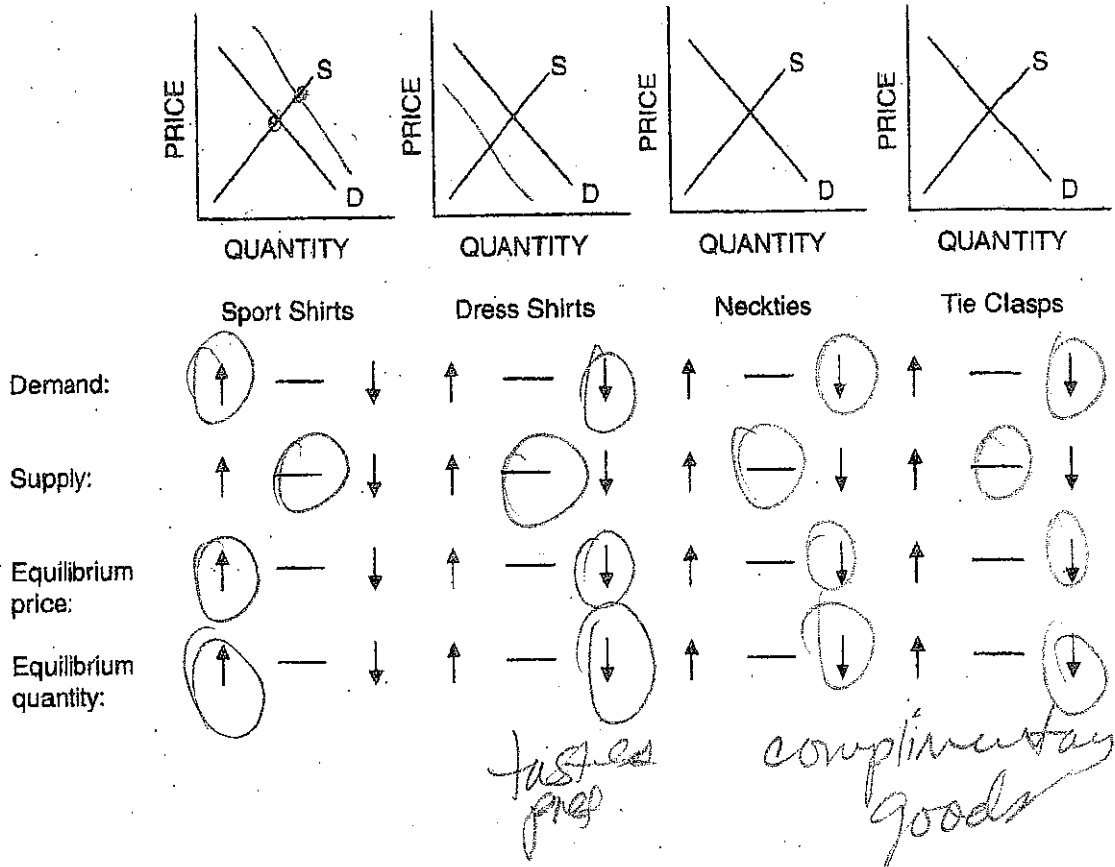


	Coffee	Tea	Cream	Automatic Coffee Makers
Demand:	↑  ↓	— ↓	↑ —	↑ —
Supply:	↑ —	↑  ↓	↑  ↓	↑  ↓
Equilibrium price:	— ↓	— ↓	↑ —	↑ —
Equilibrium quantity:	↑ —	— ↓	↑ —	↑ —

19E

4. Assume people's tastes change in favor of colored sports shirts, which are worn without neckties, and against white dress shirts, which are worn with neckties and tie clasps.

Figure 16.4  
Effects of a Shift to Sports Shirts



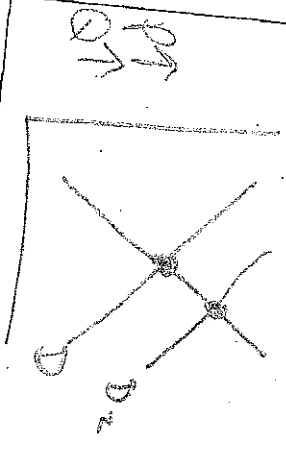
19 F



For each of the following headlines, determine if it will be a change in supply or demand for coffee. Then, identify the determinant that causes the curve to shift. Next, identify if it is an increase or decrease in supply or demand. Lastly, draw a demand or supply curve (whichever one was changed with this headline), and illustrate the proper shift for that curve.

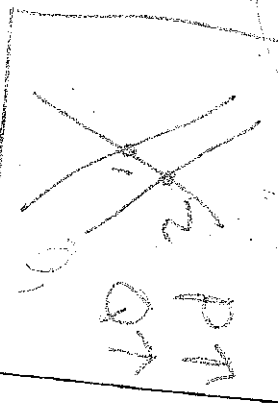
"New Coffee Beans found to Cure Cancer"

Supply or Demand? Demand  
Which determinant? health  
Increase or decrease?



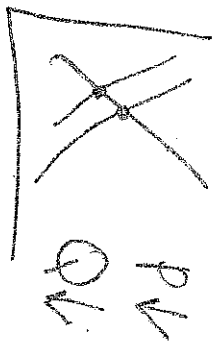
"Keurig coffee K cups all the rage! We can't keep them on the shelf!"

Supply or Demand? Supply  
Which determinant? technology  
Increase or decrease?



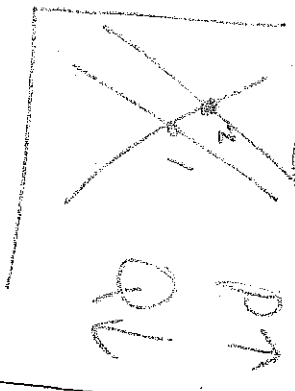
"Income for Americans falls for the 4th month"

Supply or Demand? Demand  
Which determinant? income  
Increase or decrease?



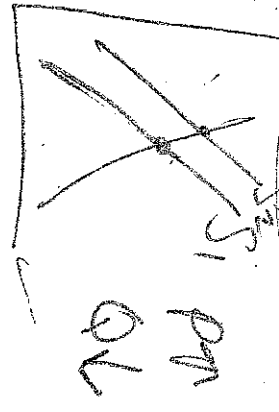
"Government imposes a 10% tax on coffee production"

Supply or Demand? Supply  
Which determinant? gov. int.  
Increase or decrease?



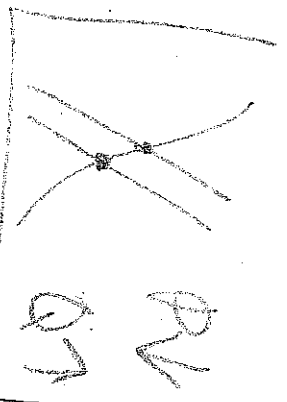
"Folgers coffee company files for bankruptcy"

Supply or Demand? Supply  
Which determinant? firm  
Increase or decrease?



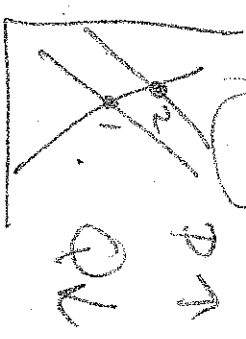
"New fertilizer grows coffee beans 10x faster!"

Supply or Demand? Supply  
Which determinant? tea  
Increase or decrease?



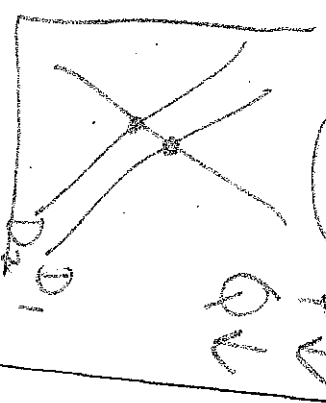
"Coffee bean plant costs skyrocket"

Supply or Demand? Supply  
Which determinant? input cost  
Increase or decrease?



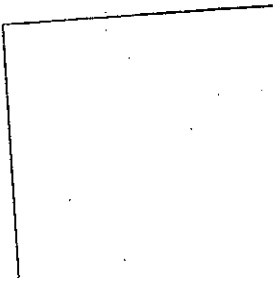
"US Population wiped out by earthquake"

Supply or Demand? Demand  
Which determinant? pop.  
Increase or decrease?



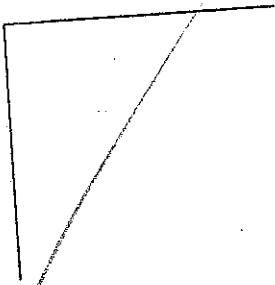
"New Coffee Beans found to Cure Cancer"

Equilibrium Price ↑ or ↓  
Equilibrium Quantity ↑ or ↓



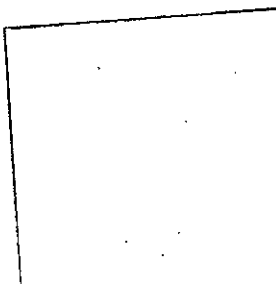
"Income for Americans falls for the 4th month"

Equilibrium Price ↑ or ↓  
Equilibrium Quantity ↑ or ↓



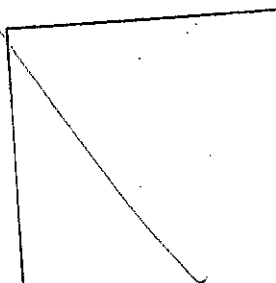
"Folgers coffee company files for bankruptcy"

Equilibrium Price ↑ or ↓  
Equilibrium Quantity ↑ or ↓



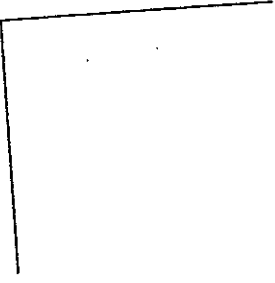
"Coffee bean plant costs skyrocket"

Equilibrium Price ↑ or ↓  
Equilibrium Quantity ↑ or ↓



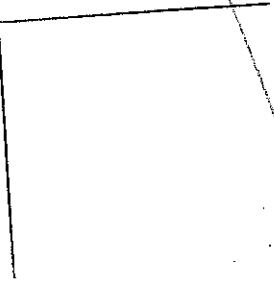
"Keurig coffee K cups all the rage! We can't keep them on the shelf!"

Equilibrium Price ↑ or ↓  
Equilibrium Quantity ↑ or ↓



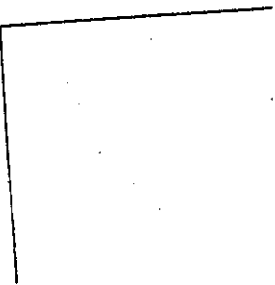
"Government imposes a 10% tax on coffee production"

Equilibrium Price ↑ or ↓  
Equilibrium Quantity ↑ or ↓



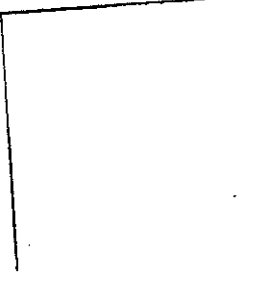
"New fertilizer grows coffee beans 10x faster!"

Equilibrium Price ↑ or ↓  
Equilibrium Quantity ↑ or ↓



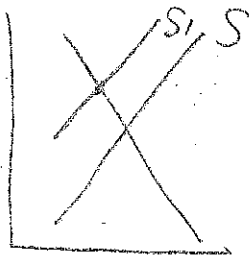
"US Population wiped out by earthquake"

Equilibrium Price ↑ or ↓  
Equilibrium Quantity ↑ or ↓



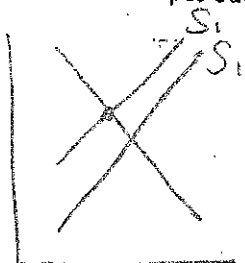
Draw a properly labeled supply and demand graph for each headline. Identify if it is a change in supply or demand. Then, shift the curve accordingly. Label your new equilibrium price and quantity. Identify if equilibrium price and quantity increased, decreased, or did not change.

Headline 1 - OPEC nations agree to cut production of oil.



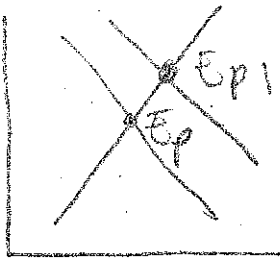
Equilibrium Price                      ↑  
 Equilibrium Quantity                      ↓

Headline 2 - Hurricane wipes out gasoline plant.



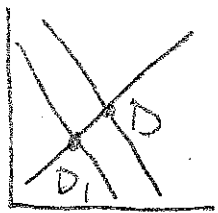
Equilibrium Price                      ↑  
 Equilibrium Quantity                      ↓

Headline 3 - People are making more money now than ever before!



Equilibrium Price                      ↑  
 Equilibrium Quantity                      ↓

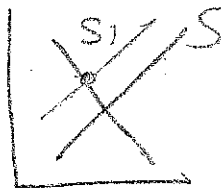
Headline 4 - Carpooling is better for the environment.



*tastes*

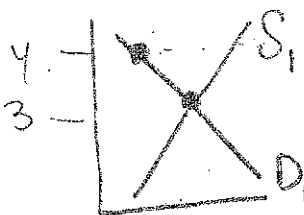
Equilibrium Price                      ↓  
 Equilibrium Quantity                      ↓

Headline 5 - Government increases taxes on gas production.



Equilibrium Price                      ↑  
 Equilibrium Quantity                      ↓

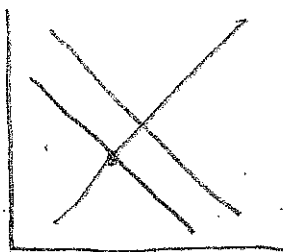
Headline 6 - Price of gasoline increases from \$3.00 to \$4.00 a gallon.



*Just Price 4*

Equilibrium Price                       
 Equilibrium Quantity                     

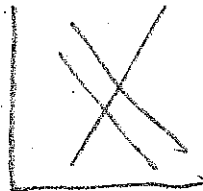
Headline 7 - Electric car sales increase overnight, popularity soars!



*tastes*

Equilibrium Price                      ↓  
 Equilibrium Quantity                      ↓

Headline 8 - Alien Invasion destroys half of U.S. Population.



Equilibrium Price                      ↓  
 Equilibrium Quantity                      ↓

