

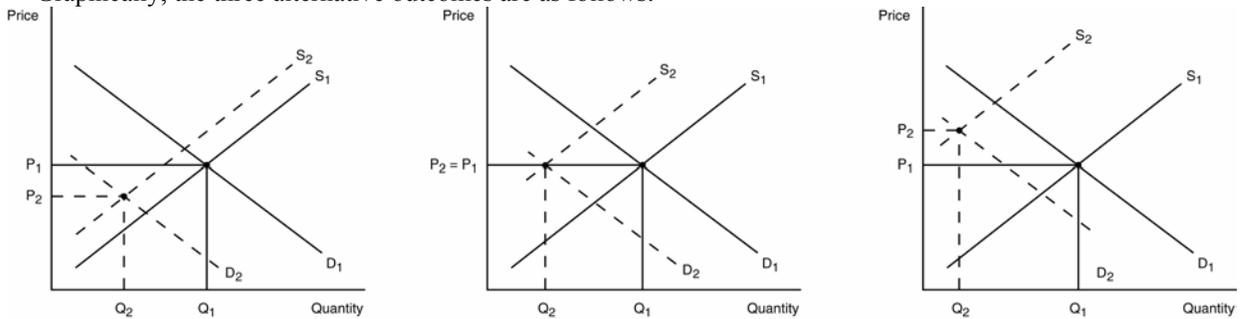
ANSWERS

From the textbook, under **Problems and Exercises** on page 91 (only one on page 90):

1. #2

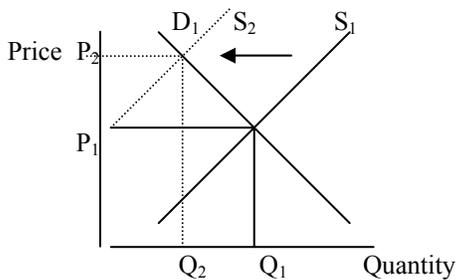
The demand curve for beef shifted to the left as consumers switched to other meats. At the same time, the supply curve for beef also shifted to the left, as farmers destroyed their herds. Since both of these shifts lead to a lower equilibrium quantity of beef, we know with certainty that equilibrium quantity will decrease. However, we cannot know with certainty whether the price of beef will rise, fall, or stay the same. The answer depends on the relative sizes of the two shifts. If demand shifts more than supply, then the price of beef will fall. If supply shifts more than demand, then the price of beef will rise. If the two shifts exactly offset each other, the price of beef will remain constant.

Graphically, the three alternative outcomes are as follows:

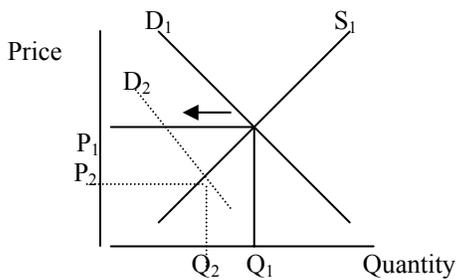


2. #3

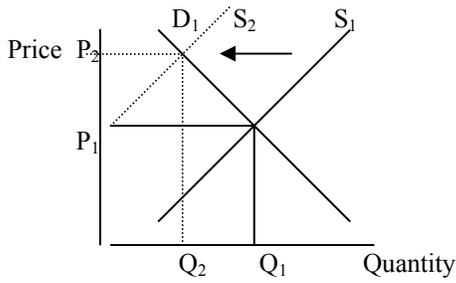
a. Supply decreases (resource destroyed), Price increases and Quantity decreases



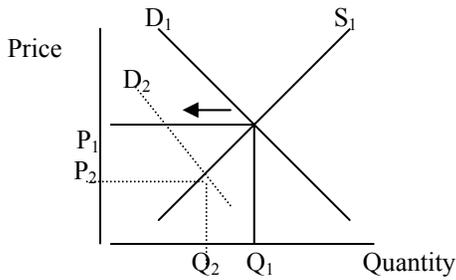
b. Demand decreases (price of substitute decreases), Price decreases and Quantity decreases



- c. Supply decreases (input price/factor of production increases), Price increases and Quantity decreases



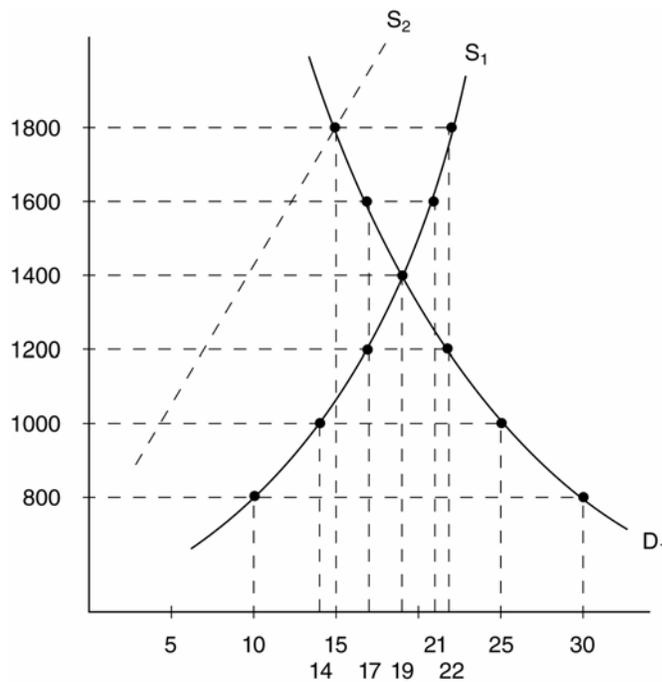
- d. Demand decreases (tastes and preferences), Price decreases and Quantity decreases



- e. Supply decreases (expected future prices increase) and Demand increases (expected future prices increase), Price increase and the change in quantity cannot be determined

3. #4

a.

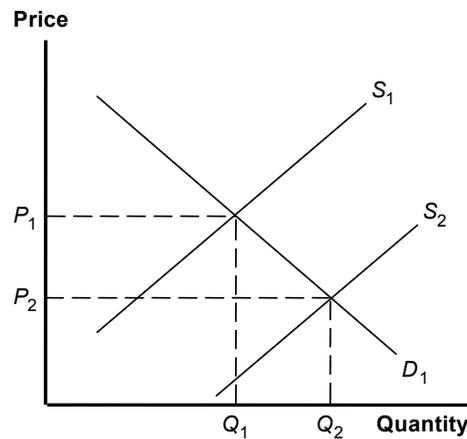


- b. \$1400 is the equilibrium price, and 19,000 is the equilibrium quantity.
 c. At a rent of \$1000, there is excess demand of 11,000 apartments. This excess demand will drive the price up.

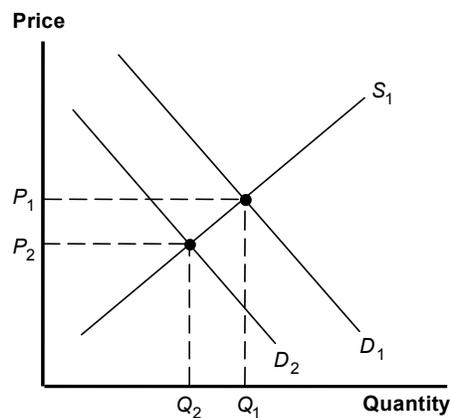
- d. The supply curve will shift leftward from S_1 to S_2 , as shown in part a. The resulting shortage at the initial equilibrium price will drive the price up and the equilibrium quantity down (to \$1800 and 15,000 units in the example shown).

4. #6

- a. Since denim is a major input into the production of jeans, an increase in the price of denim would lead to a leftward shift of the supply curve, which would result in a higher equilibrium price, and a lower equilibrium quantity.
- b. An increase in immigration would increase the supply of labor, especially the low-skilled, low-wage labor often employed in the garment industry. Wages in that industry could be expected to decline, leading to a rightward shift in the supply curve for jeans, among other clothes. Equilibrium quantity increases, equilibrium price falls. (Note: since new immigrants will also likely *buy* blue jeans, the demand for jeans would also increase. This effect is not shown.)



- c. Assuming jeans are a normal good (this seems a plausible assumption given current fashion), a decline in income would result in a decline in demand; equilibrium price and quantity both decrease.



5. #10

- a. 40 units at \$50
- b. buy remaining units

6. True/False and EXPLAIN!

A. tomatoes and lettuce are complements - an increase in cost of producing lettuce will decrease the supply of tomatoes.

False – An increase in cost of producing lettuce will decrease the Supply of lettuce, leading to an increase in the price of lettuce. As the price of lettuce increases, the demand for tomatoes will decrease because these two good are complements.

B. an increase in the profitability of growing corn will decrease the supply of soy beans.

True – An increase in the profitability of growing corn will decrease the supply of soy beans assuming they are substitutes in production; farmers will substitute soy bean land for corn land.

C. Suppose an economist found that total revenues increase for the bus system when fares were raised, the conclusion is that the price elasticity of demand for the bus system over the range of the fare increase is elastic.

False – If total revenues increase as price increases, then the price elasticity of demand over this range is inelastic (total expenditure test: as $P \uparrow$ if $TE \uparrow$ then inelastic).

D. An increase in the price consumers are willing to pay for home computers should lead to an increase in the supply of home computers.

False – If consumers are willing and able to pay more for home computers, then Demand has increased (so QS increased, not Supply).

E. When the price of eggs decreases from \$1.10 to \$1.00 per dozen, the quantity demanded of eggs increases from 6000 to 8000 dozen in Philadelphia and from 300 to 400 dozen in Dover. The price elasticity of demand is the same in both Philadelphia and Dover.

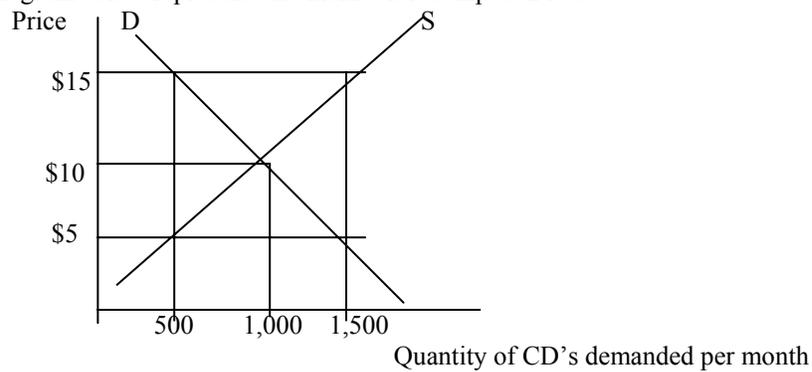
True:

Using the midpoint theorem:

$$E_D^{\text{Phili}} = \frac{\frac{(6000 - 8000)}{\frac{1}{2} * (6000 + 8000)}}{\frac{(\$1.10 - 1.00)}{\frac{1}{2} * (\$1.10 + 1.00)}} = \left| \frac{-0.2857}{0.0952} \right| = 3$$

$$E_D^{\text{Dover}} = \frac{\frac{(300 - 400)}{\frac{1}{2} * (300 + 400)}}{\frac{(\$1.10 - 1.00)}{\frac{1}{2} * (\$1.10 + 1.00)}} = \left| \frac{-0.2857}{0.0952} \right| = 3$$

7. The diagram below represents the market for Compact Discs.



- A. The market price is \$ **10**, and the market quantity equals **1,000** CD's per month
- B. If a price ceiling is established at \$5, a **shortage** would exist in the amount of **1,000** CD's per month. Show on the diagram above the impact of this price ceiling.
- C. If a price floor is set at \$15, a **surplus** would exist in the amount of **1,000** CD's per month. Show this on the diagram above.

8. What do you predict are the elasticity differences between broadly defined products such as cars, clothing, or meat versus narrowly defined products such as a Mustang, Levis, or pork chops? More substitutes exist when goods are narrowly defined (Mustangs have more substitutes than cars) therefore the price elasticity of demand for narrowly defined goods is more elastic than the price elasticity for broadly defined goods.