Chapter 4 Q and A

1. Demand is more ELASTIC if:

A) the good is inexpensive.
B) it is needed now.
C) the price of the good does not matter.
D) the good has many substitutes.

2. Once-in-a-lifetime experiences have:

A) inelastic demand.
B) elastic demand.
C) elastic demand for poor people, but inelastic demand if you are wealthy.
D) inelastic demand for wealthy people, but elastic demand if you are poor.

3. Choose the most INELASTIC good.

A) The airplane ticket you buy to attend your grandmother's funeral
B) a brand new SUV you are thinking of purchasing
C) the new stereo system you buy for your car
D) a vacation you are planning a year in advance.

4. Which curve is the most ELASTIC?

A) Short run demand
B) Long run demand
C) Immediate run demand
D) The demand curve can never be elastic

5. If the demand curve for a product is horizontal, then

A) demand is perfectly elastic.
B) consumers are not responsive to price changes.
C) its price elasticity of demand is equal to 0.
D) consumers will buy a specific amount no matter what the price.

6. Whole Foods cuts the price of organic milk from $4 to $3. Sales increase from 1000 units to 1500 units. Calculate total revenues before and after the decrease in price. Is the price elasticity of demand elastic, unitary or inelastic?

Answer: TR (before) = $4 *1000 = $4000. TR (after) = $3 * 1500 = $4500. Since the lower price generated more revenue, we know demand is elastic.

7. Whataburger decides to raise the price of their Green Chile Double sandwich from $3 to $4. The company sees that sales of the sandwich decrease from 2000 to 1500 per month. Calculate the price elasticity of demand.

Answer: (1500 – 2000)/[(1500 + 2000)/2] divided by ($4 - $3)/[($4 + $3)/2 equals: -1

8. For which of the following goods would you expect demand to be the most elastic?

A) Chewing tobacco.
B) An electric generator when your power is out.
C) A specialized tiller you need to harvest your cotton crop.
D) The food from Mel's food truck, one of many food trucks at a concert.

9. If the price elasticity of demand is -0.4, this tells us that demand is:

A) relatively elastic.
B) relatively inelastic.
C) perfectly elastic.
D) perfectly inelastic.

10. If the government imposes a new 25% tax on respirators it will create _____ increase in tax revenue in the short run.

A) no
B) a small
C) a large
D) an infinite

11. In the following ad for umbrellas, is IKEA's pricing strategy consistent with what we learned about the price elasticity of demand?

A) Yes, IKEA knows its economics.
B) No, this is completely backwards.

12. The UT bookstore decides to raise the price of "Bevo" t-shirts from $20 to $25. Sales of t-shirts decrease from 600 (last year) to 400 (this year). Determine whether demand is elastic or inelastic.

$20 x 600 = $12000
$25 x 400 = $10000
Since P increased and TR fell, demand is elastic.

13. If the University of Texas announces a 10 % increase in tuition next year and enrollment falls 5%, then demand is

A) Perfectly elastic
B) Relatively elastic
C) Unitary
D) Inelastic

14. Which of the following scenarios would result in consumers having a more inelastic demand for the product described?

A) You are on vacation and your car breaks down.
B) You are considering buying new furniture for your apartment.
C) You are shopping for some jewelry to purchase for a loved one this coming Christmas.
D) You want to buy a new home.

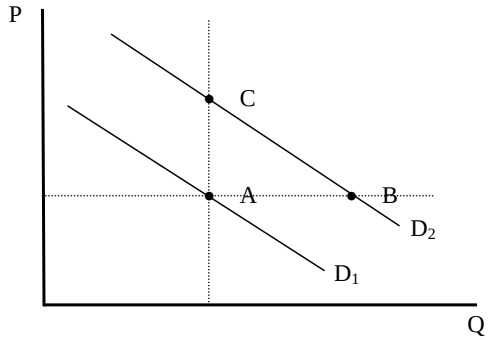
15. Thumbelina raised her quantity demanded of disposable gloves from 100 to 150 when the price fell from $6 to $4 per glove. Using the midpoint method, her price elasticity of demand is _____.

A) 0.80
B) -1.25
C) -1.00
D) 0.40
E) -0.80

16. As one moves down along a linear demand curve the slope _____ and the price elasticity of demand _____.

A) is constant; is constant
B) decreases; is constant
C) increases; is constant
D) is constant; becomes more elastic
E) is constant; becomes more inelastic

17. What is the most you can say about the relationship between the elasticity of demand at point A, point B and point C?



Let E_X denote the elasticity of demand at point X. We know that E_C is more elastic than E_A and E_A is more elastic than E_B.

18. Suppose the U.S. government introduces a new anti-drug policy that 1) imposes stiffer penalties on individuals who sell and manufacture drugs in the United States and 2) stems the flow of illegal drugs from other countries into the United States.

a. Using a supply and demand diagram, show how this policy is likely to affect the equilibrium price and quantity of drugs in the United States. Be sure to label the y-axis, the x-axis, the supply curve, the demand curve, any shifts in either curve induced by the new policy, and the equilibrium price and quantity before and after the new policy.

Answer: See below. This policy will reduce the supply of drugs, but it will not affect the demand for drugs.

b. Under what conditions will this new policy reduce total expenditures on drugs?

Answer: In order for this policy to reduce total expenditures, the elasticity of demand must be less than -1.

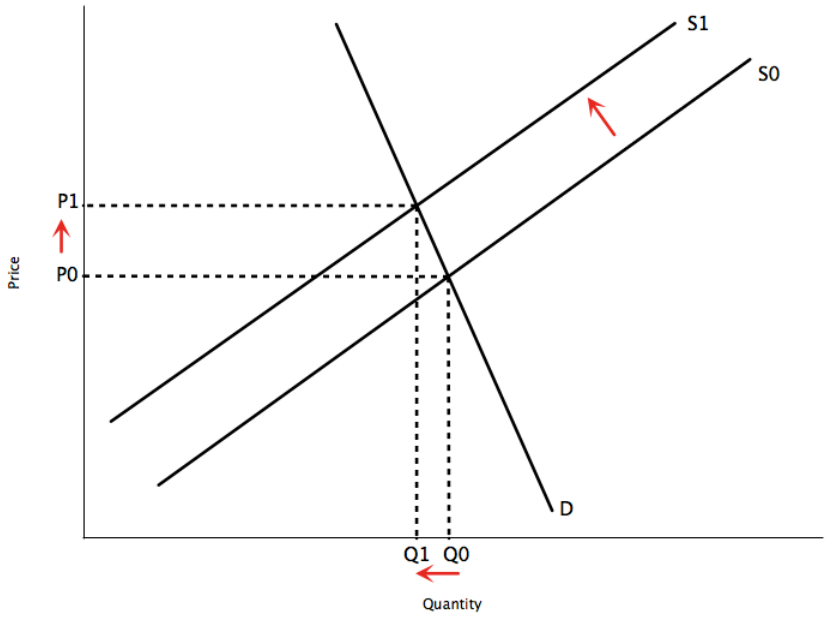
c. Given that most drugs are addictive, briefly explain whether you think this assumption is likely to hold.

Answer: Most drugs are addictive, suggesting that the price elasticity of demand will be low, between 0 and -1. Thus, it's unlikely that this policy will reduce expenditures on drugs.

d. If the government were to instead introduce a new anti-drug policy that 1) educated young people about the dangers of drug use and 2) increased funding for drug rehabilitation programs, how would the total expenditure on drugs be

likely to change? Carefully, explain your answer, making reference to how such a policy would affect the equilibrium price and quantity of drugs.

Answer: Such a policy would reduce the demand for drugs. Thus, it would lower both the price and quantity of drugs. This would necessarily imply that total expenditures on drugs would fall.



19. Let the supply curve for gasoline be given by *Qs=3/2P-3* and let the demand curve for gasoline be given by *Qd=5-1/2P*.

a. Sketch the supply curve and the demand curve.

Answer: See below.

b. Compute the equilibrium price and quantity of gasoline, and label these on your graph.

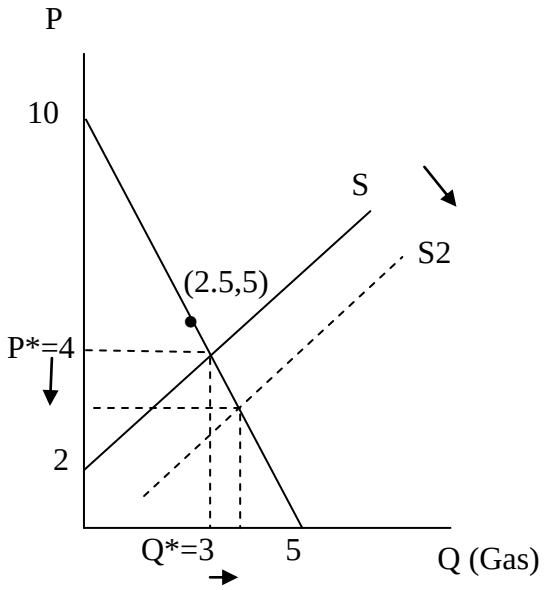
Answer: The equilibrium price and quantity are found by setting 3/2P-3=5-1/2P. Solving this we have that: 2P=8 so that P*=4 and Q*=3.

c. Suppose that the President allows companies to drill for oil in the Arctic National Wildlife refuge. How will the President's new policy affect the equilibrium price and quantity of gasoline?

Answer: As shown in the picture the equilibrium price of gasoline will fall and the equilibrium quantity of gasoline will increase.

d. Given the President's new policy, will total revenues increase or decrease for gasoline suppliers? Explain.

Answer: The effect of this supply shift will depend on the elasticity of demand for gasoline. We know that we are on the inelastic portion of the demand curve, thus the percentage decrease in prices will be larger than the percentage increase in quantity. As a result, revenues in this market will fall. NOTE: The midpoint of the demand curve is represented by the point (2.5, 5).



20. If incomes increase by 48% and the quantity demanded of tennis balls drops by 72% as a result, what is the income elasticity of demand for tennis balls? Give your answer to one decimal.

Answer: The percentage change in quantity demanded (-72%) divided by the percentage increase in income (48%) gives an income elasticity of -1.5.

What is the best description of the demand for tennis balls, given that the quantity demanded of tennis balls drops by 72% when incomes increase by 48%?

Answer: Inferior goods see their quantity demanded increase as incomes decrease and the quantity demanded decrease as incomes increase. The negative value of the income elasticity of demand points to this negative relationship.

21. When a supplier cannot easily adjust its production process, which in turn limits its quantity supplied, the elasticity of supply is

A) 0
B) 1
C) greater than 1
D) less than 1

22. Which of the following is true about the income elasticity of demand?

A) It's negative.
B) It's zero.
C) It's positive.
D) B and C are true.
E) A and B are true.
F) All of the above are possible.

23. The two primary determinants of the price elasticity of supply are:

A) inputs and prices
B) prices and time
C) time and inputs
D) inputs, time, and prices
E) None of these is correct.

24. If the price of Air Jordan shoes increases from $300 to $500 and the quantity of basketballs sold fall from 200 to 100, calculate the cross-price elasticity of demand.

E_C = [(100-200)/150] / ([($500-$300)/$400]
= (-100/150) / ($200/$400)
= -2/3 / 1/2
= -4/3