

DUE DATE: _____

NAME: _____

CHAPTER 4: DEMAND AND ELASTICITY WORKSHEET

Definition of Elasticity of Demand:

It is a measure of how responsive quantity is to a price change. The **higher** the measure then the **more responsive** consumers will be to a change in price. The **lower** the measure then the **less responsive** consumers will be to a change in price.

- The elasticity of demand is _____ in the _____ run because consumers have **MORE** time to adjust.
- An Elasticity of 1.0 or greater = _____ demand (*page 110 in book*)
- An Elasticity of exactly 1.0 = _____ demand
- An Elasticity of between 0 and 1.0 = _____ demand
- Use the Elasticity formula to calculate values of Elasticity for all the situations below. Change negatives to positives.

STEP 1: The formula used to calculate the percentage change in quantity demanded is:
 $[Q_{Demand}(NEW) - Q_{Demand}(OLD)] / Q_{Demand}(OLD)$

STEP 2: The formula used to calculate the percentage change in price is:
 $[Price(NEW) - Price(OLD)] / Price(OLD)$

STEP 3: (STEP 1) / (STEP 2)

Price		Quantity		STEP 1 % change in quantity demanded	STEP 2 % change in price	STEP 3 Price Elasticity of Demand
Initial	New	Initial	New			
25	30	100	40			1. _____
40	70	120	90			2. _____
200	220	80	64			3. _____
50	75	150	135			4. _____

In each case identify whether you would describe it as **elastic / unit elastic / inelastic**

- _____
- _____
- _____
- _____

6. What happens to the Elasticity of Demand if there are many substitutes for a good? Is it **elastic** or **inelastic**? Why?

7. Given the data below, calculate the price elasticity of demand when the price changes from \$9.00 to \$10.00.
ANSWER: _____ *CHANGE ALL NEGATIVE NUMBERS TO POSITIVES*

Data for Good X	
Price (\$)	Quantity Demanded
7.00	200
8.00	180
9.00	150
10.00	110
11.00	60

8. Is the demand for Good X Elastic or Inelastic between \$9 and \$10? *Use the above demand schedule to answer this.*

9. What does it mean for a good to be **elastic**?

10. What type of demand would there be for a good that had **NO** substitutes? *Circle One*

Elastic

Inelastic

11. Which way would the demand curve of Good X shift if the price of Good Y (a complementary good) increased? *Circle One*

Left

Right

12. What happens to the Demand Curve of a Good X if the price of Good Y (a substitute good) increases? Explain why the demand curve for Good X changed?

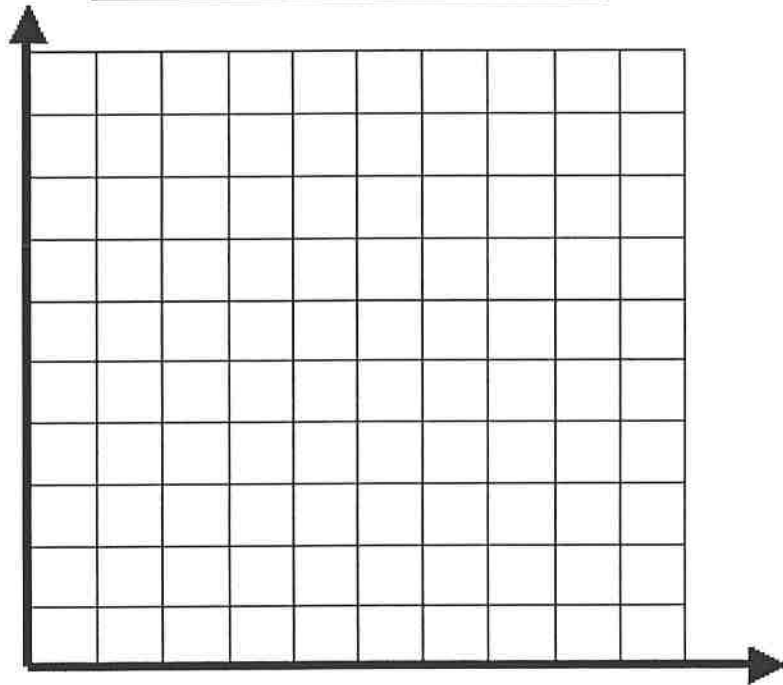
Left

Right

13. Kobe's favorite drink is cola. He buys a 12 pack from his local supermarket and has noticed that the price often varies. His monthly demand for cola is shown below: From the information provided in the demand schedule, draw a labeled demand curve below.

Use the graph space to draw the curve. Label the demand curve D1.

Kobe's Weekly Demand for Cola	
Price (\$)	Quantity Demanded
5.00	2
4.50	3
4.00	4
3.50	5
2.50	6



14. Kobe's drinks cola drinks to give him energy - he loves Dr. Pepper, but sometimes Mr. Pibb (a substitute good for Dr. Pepper) is on special sale. Given the lower price for Mr. Pibb, a new demand schedule had to be created for Dr. Pepper. Use the graph space above you created in Question 13 to draw the new demand curve. Label the new demand curve D2.

DEMAND SCHEDULE

<u>PRICE FOR DR. PEPPER</u>	<u>OLD DEMAND</u>	<u>NEW DEMAND</u>
\$5.00	2	1
\$4.50	3	2
\$4.00	4	3
\$3.50	5	4
\$2.50	6	5

15. From the information shown on figure 1 below, construct a demand schedule showing Kobe's monthly demand for Dr. Pepper.

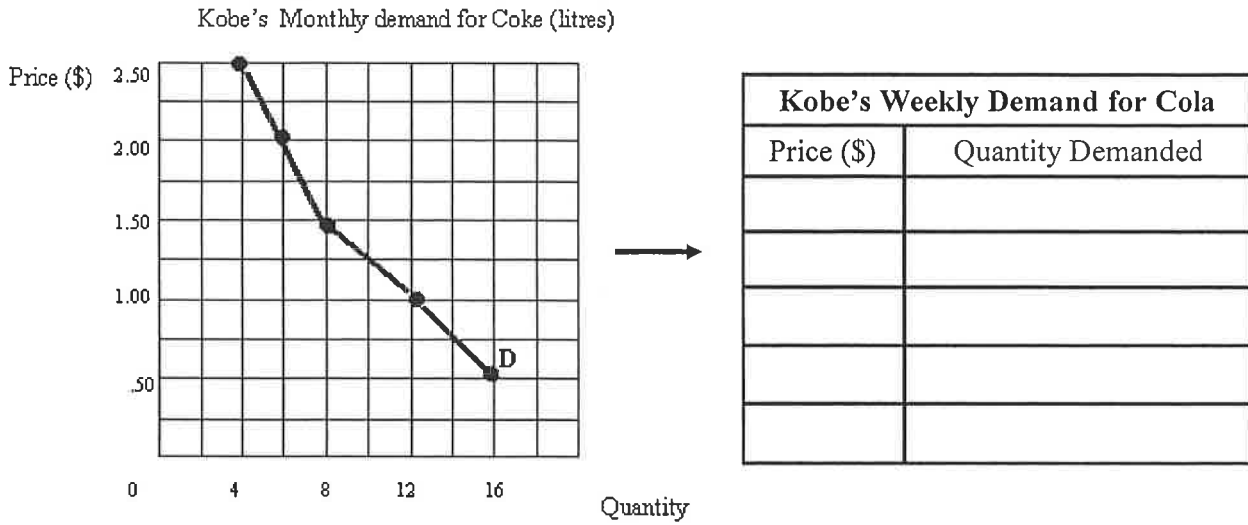


Fig 1.

16. Which way would the demand curve for Good X (an **inferior** good) shift if your income **increased**? *Circle One*

Left

Right

17. In the following scenarios describe if there is a shift to a demand curve for Good X and state which way the curve will shift (**Left, Right, or Stays the Same**)

- | | |
|--|----------|
| a) an increase in price for Good X | A. _____ |
| b) a fall in customer's income | B. _____ |
| c) an increase in the price of a substitute good | C. _____ |
| d) a decrease in the price of a complement good | D. _____ |

18. Why do suppliers want to create more inelastic demand relationships in the products that they sell?