

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
- 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:

$$[Q_{\text{Demand(NEW)}} - Q_{\text{Demand(OLD)}}] / Q_{\text{Demand(OLD)}}$$

STEP 2: The formula used to calculate the percentage change in price is:

$$[\text{Price(NEW)} - \text{Price(OLD)}] / \text{Price(OLD)}$$

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?

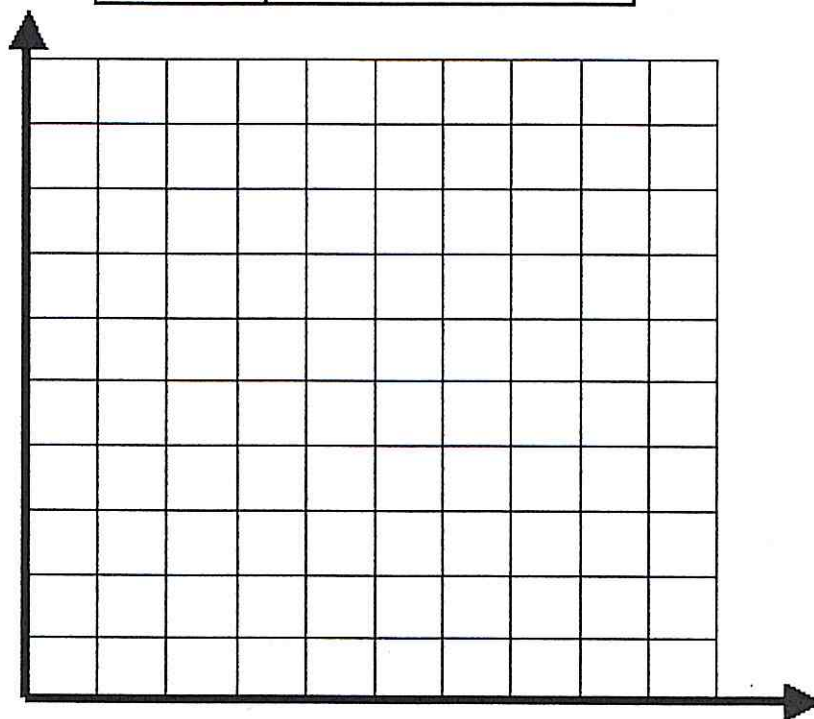
**Left**

**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

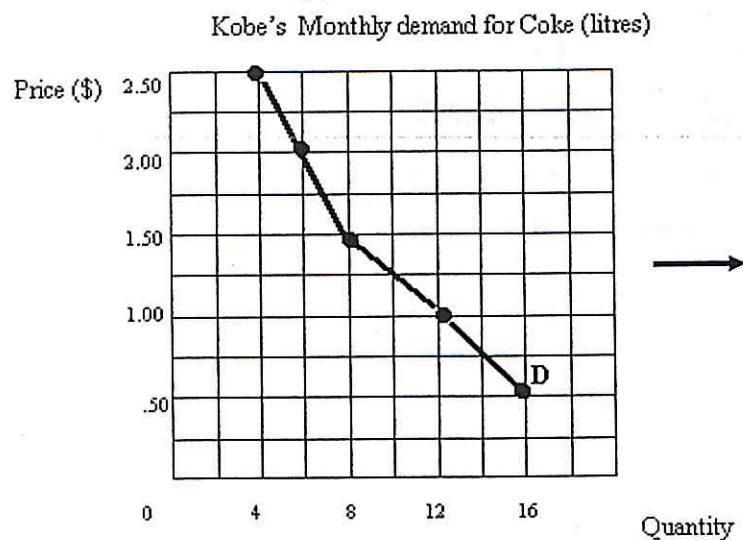


14. Kobe's drinks cola drinks to give him energy - he loves Dr. Pepper, but sometimes Mr. Pibb (a substitute good for Dr. Pepper) is on special sale. Given the lower price for Mr. Pibb, a new demand schedule had to be created for Dr. Pepper. Use the graph space above you created in Question 13 to draw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



Kobe's Weekly Demand for Cola	
Price (\$)	Quantity Demanded

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