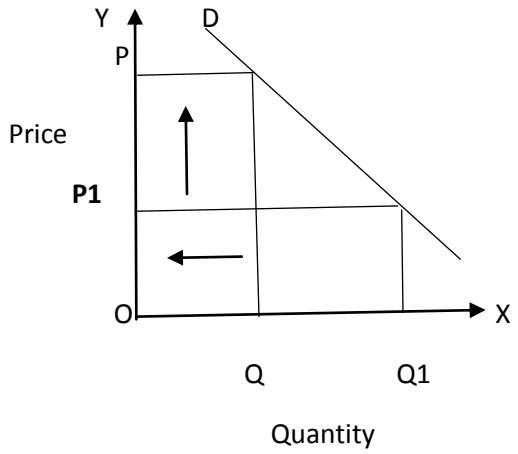
DEMAND

Demand is a number of goods and services that a consumer is willing and able to but at various prices during a specific time period. The demand of a commodity includes wishing to have the goods, resources to satisfy the demand, willingness to spend, particular time and price. When wish or desire is not supported by the resources to fulfill the desire then it will not be termed as demand.

FUNCTIONS/FACTORS AFFECTING DEMAND

The demand for a particular commodity is affected by various factors. The relationship between the demand for X goods and factors affecting it is known as Demand Function.

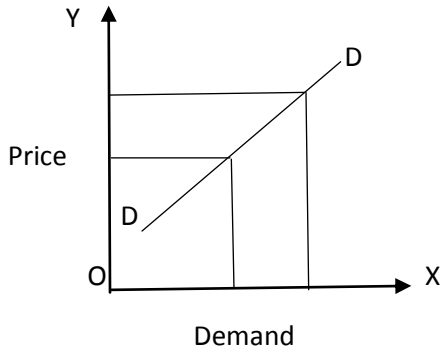
1. The price of x goods- There is an inverse (negative) relationship between the price of a product and the amount of that product and the amount of that product consumers are willing and able to buy. Consumers want to buy more of a product at a low price and less of a product at a high price. This inverse relationship between price and the amount consumers are willing and able to but is often referred to as the law of demand. There is a negative relationship because of consumer equilibrium.



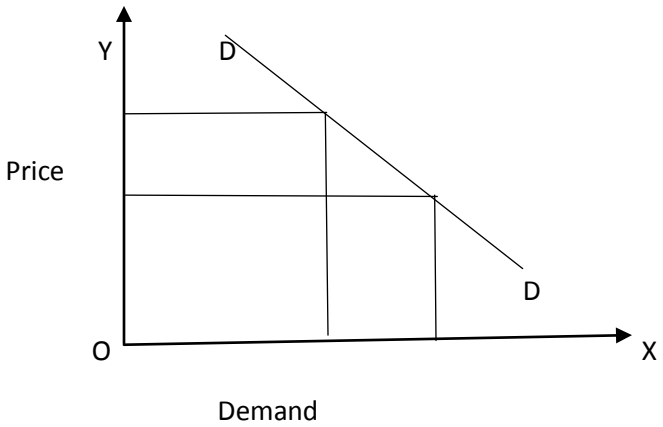
2. **Price Of Related Goods –**

The not only price of x goods affects its demand but the prices of related goods also affect its demand. On the basis, the related goods can be classified into two categories-

a. Substitute Goods- Substitute goods are those goods which can be used in place of another without any significant loss of satisfaction. For example- Pepsi and Coke are a good example of substitute goods. Substitute goods have the positive relationship between their prices and demands. If the price of Pepsi increases then the demand for Coke will increase as the consumers will substitute coke for Pepsi for getting the maximum satisfaction.

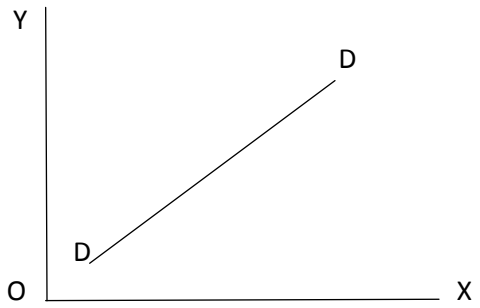


a. Complementary Goods- These goods are those goods which cannot be used without each other. For example- mobile handsets and mobile connections. Complementary goods have the negative relationship between their demands and prices. When the prices of mobile connections increase the demand for mobile handsets decreases and vice versa. These two relationships can explain by the following diagram-

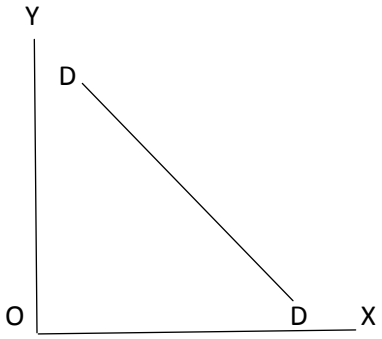


3. Income of The Consumer: Demand of particular goods is also affected by the income level of the consumer. The relationship between demand and income of the consumer depends upon the nature of goods. It can be classified into two parts-

a. Normal Goods- Normal Goods are those goods and services which have the positive relationship between their demands and income of the consumers. For example- the demand for luxury goods increases as the income of consumers increases. On normal goods the income effect is positive.



a. Inferior Goods- Inferior goods are those goods and services which have a negative relationship between their demands and income of the consumers. For Example- The demand of rotten grains increases as the income of consumers decreases. On inferior goods, the income effect is negative.



3. Taste and Preference: Taste and preference also affect the demand for the x commodity. The goods which are more preferred and liked by the consumers will be demanded more and vice versa. A change in fashion also affects demand for commodities.

4. Expectations: Future expectation also affects the current demand of x good. The future expectations are of two kinds.

A. Related to prices of x commodity- If the future prices of the commodity are expected to increase then the current demand of x commodity will increase and vice versa.

B. Related to income of the consumer- If the future income of consumer is expected to increase then current demand of the commodity will increase and vice versa.

Demand Schedule

Demand Schedule is the tabular presentation of the relationship between the price of x goods and its quantity demanded. Demand table shows the negative relationship between Dx and Px. It shows when the price of x good increases its quantity demanded falls and vice versa. It is two types-

a. **Individual Demand Schedule-** Individual demand schedule is the tabular presentation of the relationship between the price of x good and demand of an individual consumer. Individual Demand Table shows the negative relationship between Dx (of individual) and Px. It shows when the price of x goods increase its quantity demanded falls and vice versa.
b. **Market Demand Schedule:** Market Demand schedule is the tabular presentation of the relationship between the price of x goods and demand of all the consumer in the market (e.g. A,B and C). Market Demand Table shows the negative relationship between Dx (of all consumers) and Px. It shows when price of x good increases its quantity demanded falls and vice versa

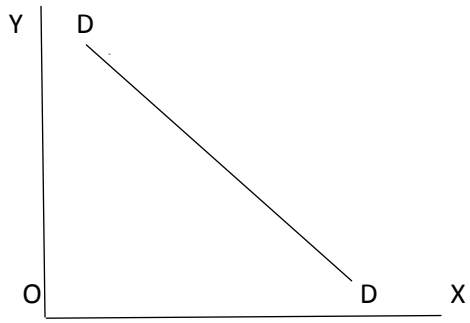
PRICE	Da	Db	Dc	Dm
1	5	6	7	18
2	4	5	6	15
3	3	4	5	12
4	2	3	4	9
5	1	2	3	6

If we take the price of x good and Da and Db or Dc than it will be termed as individual demand curve than if we take the price of x and Dm than it will be market demand curve.

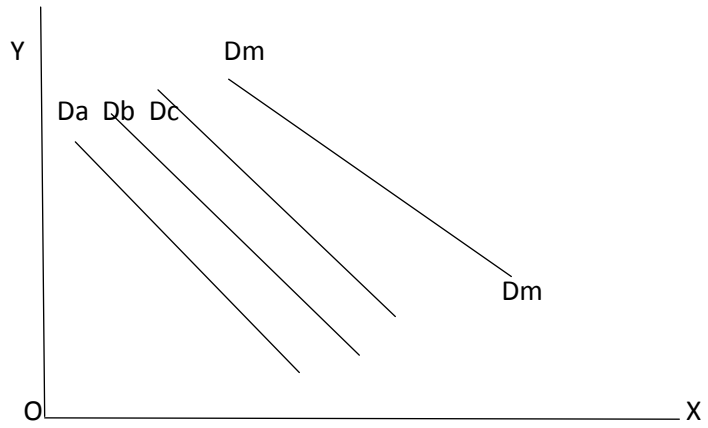
DEMAND CURVE

Demand Curve is the graphical presentations of the relationship between the price of goods and its demand. The demand curve shows the negative relationship between Dx and Px shows when prices of x goods increase its quantity demanded falls and vice versa.

a. Individual Demand Curve- Individual demand curve is the diagrammatic presentation of the relationship between the price of x goods and demand of an individual consumer. The individual demand curve shows the negative relationship between Dx (of individual) and Px. It shows when the price of x goods increases its quantity demanded falls and vice versa.



a. Market Demand Curve- Market demand curve is the tabular presentation of the relationship between the price of x goods and demand of the entire consumer in the market (e.g. A, B, and C). The market Demand curve shows the negative relationship between Dx (of all consumers) and Px. It shows when the price of x goods increases it quantity demanded falls and vice versa.



CHANGE IN DEMAND

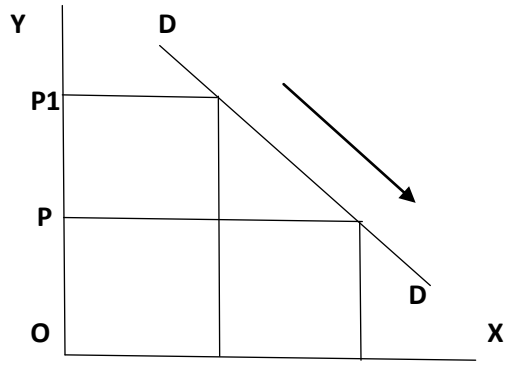
As we know that the demand of x good is affected by the components of the demand function. When any variable changes in the demand function the demand changes. Change in demand is classified into two groups-

1. Change in Quantity demanded /movement on the demand curve: When the price of the goods x changes the demand for x goods also changes. This change can be positive and negative. Change in quantity demanded is caused by the changes in prices and it is divided into two categories-

a. Extension in Demand–Extension in demand is a situation in which the quantity demanded of x goods increases due to decreases in its price while other factors remain constant. In this consumer moves

from right to leftward (downward) on the negatively sloped demand curve. This can be explained by the following table and diagram-

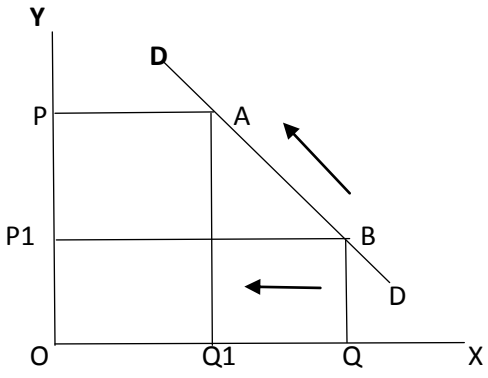
Px	Dx
4	2
2	4



In this diagram and Schedule, price decreases, as a result, the consumer moves down from a point on the demand curve to point b which is known as the downward movement or extensions in quantity demanded.

a. Contraction In Demand – Contraction in demand is the situation in which the quantity demanded of x goods decreases due to increases in its price while other factors remain constant. In this consumer moves from left to rightward (upward) on the negatively sloped demanded curve. This can be explained by the following table and diagram-

Px	Dx
2	4
4	2



Price

Demand

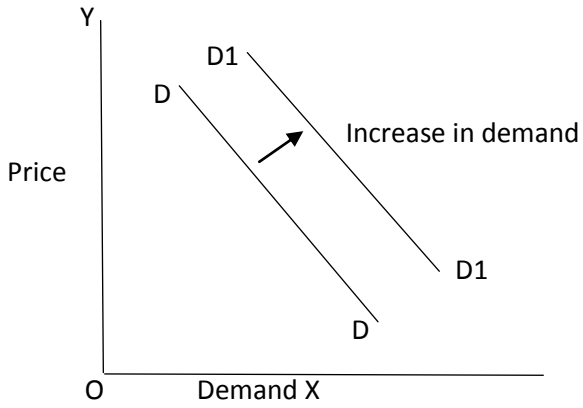
In this diagram and Schedule, price increases, as a result, the consumer moves upward from B point on the demand curve to point A which is known as the upward movement or contraction in quantity demanded.

CHANGE IN DEMAND/SHIFT OF THE DEMAND CURVE

When the price of the goods x do not change and demand of x goods changes because of other factors (effect of other factors). This change can be positive and negative. Change in Demand is divided into two categories-

a. Increases In Demand- Increase in demand is a situation in which the demand of x good increases due to positive change in other factors (decrease in the price of complementary goods, increases in the price of substitute goods, increases in the income of consumer) while price remains constant. In the consumer shifts from left demand curve to the right, demand curve. This can be explained by the following table and diagram.

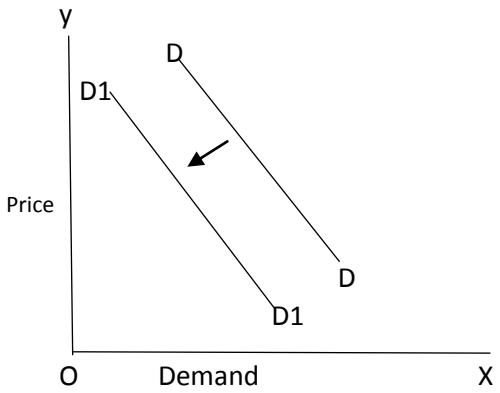
Px	Dx
4	2
4	4



In this diagram, the price remains constant and due to positive changes i.e. which increases the demand, in other factors, that affect demand, the demand of the goods increases. This is called as the increase in demand.

b. Decrease in Demand- Decrease in demand is the situation in which the demand for x goods decreases due to a negative change in other factors (increases in the price of complementary goods, the decrease in the price of substitute goods, the decrease in the income of consumer) while price remains constant. In the consumer shifts from right demanded curve to left demand curve. This can be explained by the following table and diagram.

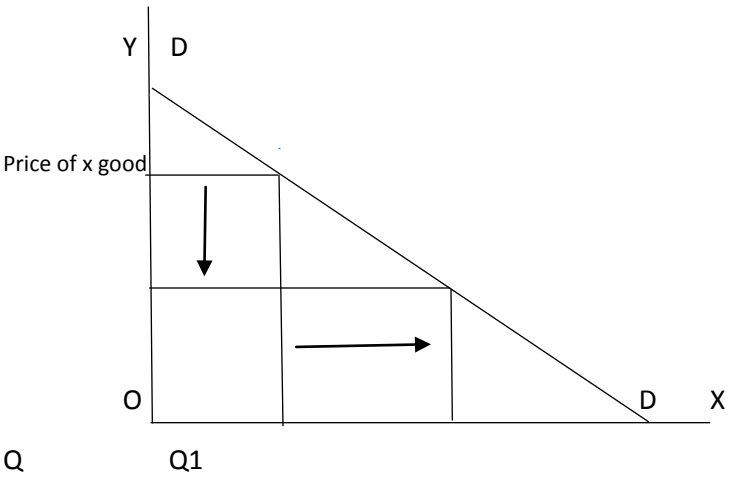
Px	Dx
4	4
4	2



In this diagram the price remains constant and due to negative changes i.e. which decreases the demand, in other factors, that affects demand, the demand for the goods decreases. This is called as the decrease in demand.

LAW OF DEMAND-: Law of Demand explains the inverse relationship between the price of x goods and its quantity demanded. This law states that when the price of x goods decreases while other factors remain the same, its quantity demanded increases and vice versa. The law of demand states inverse relationship between price and the quantity demanded, Ceteris Paribus. This fundamental economic principle indicates that as the price of commodity decreases, then the quantity of the commodity that buyers are able and willing to purchase in a given period of time if other factors are held constant, increases. This can be explained by the following table and diagram. This is known as 'First Law of Purchase'.

Px	Dx
1	4
2	3
3	2
4	1



Demand for x goods

The above schedule and diagram show the inverse relationship between Px and Dx. When the price of X goods decreases then the quantity demanded the x goods increases and vice versa.

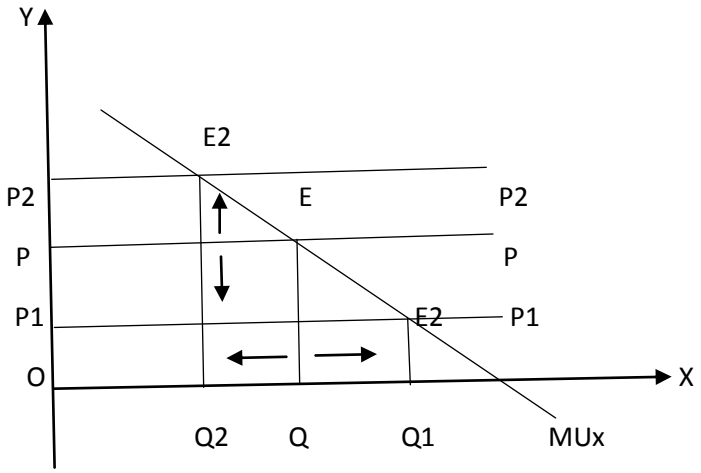
REASONS FOR DOWNWARD SLOPE OF DEMAND CURVE/LAW OF DEMAND

OR

WHY DOES DEMAND CURVE SLOPE DOWNWARD

1. Law of Diminishing Marginal Utility- As per the law of diminishing utility, marginal utility decreases as the demand (consumption) increase. When Px decreases the equilibrium (MUx=Px) is disturbed and to again achieve this equilibrium a consumer will increase his consumption by demanding more so as to decreases the Mux and be in a position of equilibrium. Thus, when Px decreases Dx increases and vice versa. A rational consumer will always try to equate his MU with the price he pays for the goods and services. This can be explained by the following diagram.

UNIT	MUx	P	P1	P2
1	10	6	4	8
2	8	6	4	8
3	6	6	4	8
4	4	6	4	8
5	2	6	4	8



In the above diagram, it is shown that when the price of x good increases because of diminishing marginal utility the demand of x good decreases and vice versa.

1. Substitute Effect- Substitute Effect means that when Px (coke) is changed then it relative prices to its substitute goods (Pepsi) also changes. When Px (coke) decreases then it became relatively cheaper to its substitute (Pepsi) and the consumer who were using substitute (Pepsi) goods will now use x goods (coke) and as result demand of x good will increases and vice versa. Thus, when the price of x good changes then its price is also relatively changed and its demand is affected.

2. Real Income Effect- Real Income is a number of goods and services that a consumer buys with his given amount of income. When prices of x goods decrease the real income of the consumer increases as he can buy the same amount of goods with lower monetary income. Thus, he is left with additional income, which is used for additional demand. Thus, Dx increases when Px decreases.

Entry and Exit of Consumer- When Px changed the number of consumers also changes. When the price of goods increases then a part of the existing consumer exits from the market as now they cannot afford to buy x goods. When Px decreases new consumer enters into the market

Entry and Exit of Consumer: When Px changes the number of consumers also changes. When the price of goods increases then a part of the existing consumer exits from the market as now they cannot afford to buy x goods. When Px decreases new consumers enters into the market which leads to increased demand for x goods.

Exception to the Law of Demand / Conditions where Law of Demand is not applicable

The exception to the law of Demand is the substitute in which the inverse relationship between Px and Dx in not found. E.g. when Px increases Dx does not decreases and vice versa. Following are the exceptions to the Law of Demand.

1. Giffin Goods- Giffin Goods are those inferior goods which are used by the lowest section of the society and do not have any other cheaper substitute available in the market. On such goods law of demand in not applicable as when the price of such goods increases the demand for these goods do not decrease as the applicable as the consumers do not have any other cheaper options available in the market and he is bound to buy these goods even at a higher price.

Show Off Goods: These are those goods that are purchased for the demonstration of statuses like imported glasses, cars, and diamonds. The law of demand is not applicable on such goods as the demand for such goods falls as price decreases. These goods are demanded their higher prices only.

1. The relationship between Price and Quality- There are some customers who establish a positive relationship between price and quality of goods. When the price of goods increases, such consumers feels that the quality that the quality level has improved and, as a result, the demand of such consumers does not decreases.

ELASTICITY OF DEMAND(PRICE ELASTICITY)

Ed is the rate of responsiveness at which quantity demanded changes due to 1% change in the price of x goods. In simple words, it's the ratio of proportionate changes in the quantity demanded of x goods and proportionate change in the price of x goods. It tells how much % quantity demanded will change due to 1% change in price. Ed = Proportionate change in quantity demanded

Proportionate change in price

FACTORS OF AFFECTING ELASTICITY OF DEMAND

By these factors, we mean that there are some factors which affect the elasticity of goods and services. All the goods and services are not equality affected by the proportionate change in the price. Following are the factors which make the demand for some goods elastic and less elastic.

Nature of goods-

The elasticity of demand depends on the nature of goods. The elasticity of demand for a commodity depends upon the necessity of it for a human life. Goods may be necessary for human life, comfort or luxury. Necessary goods are essential so the demand for these goods is inelastic.

Availability of Substitution:

The demand for a commodity having perfect substitute is relatively more elastic. If a good can give the same pleasure and satisfaction in place of the consumption of another commodity, it is called a substitute commodity. A substitute may be close and remote. The close substitute has got more elastic demand and the remote substitute has less elastic demand. Tea and coffee are substitute commodities. Both can be used in the absence of another. Thus, the demand for tea and coffee is elastic.

Alternative use:

The Demand for those goods having more than one use is said to be elastic. In other words, goods having alternative uses are elastic. All the uses are not of some importance. As the commodities are put to certain less urgent needs or use as a result of fall in price their demand rises. People use those commodities for certain urgent use in response to a rise in price. For Example- Electricity can be used for a number of purpose like heating, lighting, cooking, cooling etc. If the electricity bill increases people utilize electricity for certain important urgent purpose

and if the bill falls people use electricity for a number of other unimportant uses. Thus the demand for electricity id elastic.

Possibility of Postponing Consumption-

The demand for those goods whose consumption can be postponed for some time is said to be elastic. On the other hand, if the commodities cannot be postponed and need to be fulfilled the demand for them is inelastic. Medicine for patient books for a student and milk for a child cannot be postponed. They are to be satisfied first. That is why the demand for those commodities is inelastic.

1. **Proportion Of Income Spent-**

The elasticity of demand also depends on the proportion of income spent on different goods. The demand for those goods on which a negligible amount of the total income of the consumer is spent is said to be inelastic. Salt, edible oil, match box, soap etc. account for a very negligible amount of the consumer income. That is why their demand is inelastic.

TOTAL EXPENDITURE METHOD OF ED

Total Expenditure method of calculation Ed is based on the changes in total expenditure of a consumer when the price of x goods changes. When the price of x goods changes it can have positive, negative or nil effects on the total expenditure.
Total Expenditure = price of x goods × Quantity purchased
On the basis of the relationship between change in price and change in total expenditure. Ed can be classified /divided into the following three categories:
1. Ed is greater than one (Ed>1): When there is the negative relationship between direction change in price and change in total expenditure. E.g. when the price of x goods increases, total expenditure fails and when the price of x goods decreases total expenditure increases. This can be explained by the following table-

Px	Dx	TE		Px	Dx	TE
4	6	24		4	6	24
6	3	18		3	9	27

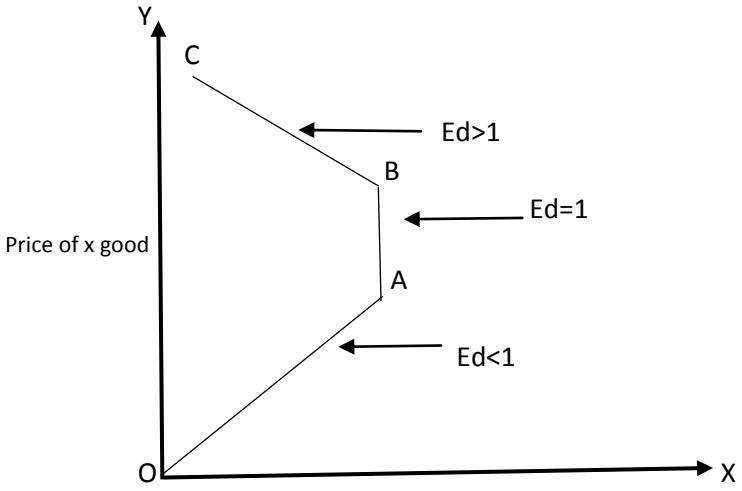
2. Ed is less than one (Ed<1): when there is the positive relationship between the direction of changes in the price of x goods and change in the total expenditure. When the price of x goods increases than expenditure also increases. When the price of x goods decreases, total expenditure also decreases. This can be explained by the following by the following schedule.

Px	**Dx**	**TE**		**Px**	**Dx**	**TE**
4	6	24		4	6	24
6	5	30		3	7	21

3. Ed is equal to one (Ed=1): when the change in the price of x goods does not affect the change in total expenditure than Ed will be equal to one. When the price of x goods increases or decreases total expenditure remains the same. This can be explained by the following schedule.

Px	**Dx**	**TE**		**Px**	**Dx**	**TE**
4	**6**	**24**		**6**	**4**	**24**
6	**4**	**24**		**4**	**6**	**24**

DIAGRAMMATIC EXPLANATION

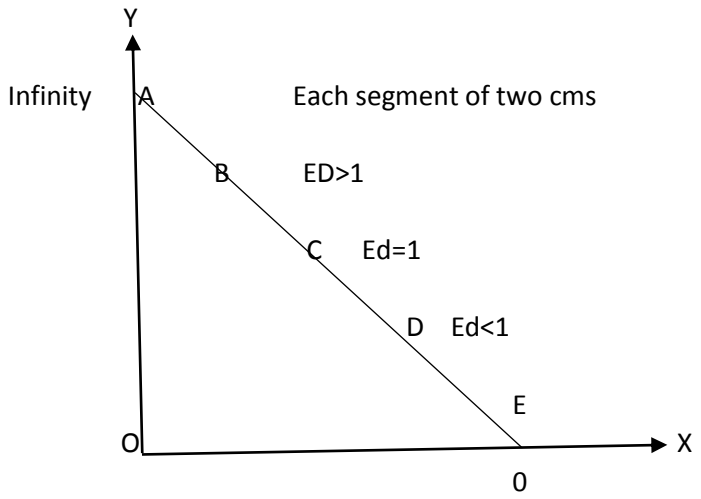


Total Expenditure

In this diagram, the positive segment (OA) shows the positive relationship between change in price and change in total expenditure.
Segment AB shows no relationship between price and total expenditure as the total expenditure remains constant even when the price is increasing.
Segment BC shows the inverse relationship between change in price and change in total expenditure.

GEOMETRIC METHOD OF MEASUREMENT OF PRICE ELASTICITY OF DEMAND

According to the geometric method of elasticity of demand elasticity of demand on a straight-lined demand will be the ratio of the lower segment of the demand curve and the upper portion of the demand curve.



Ed at C point = CE/AC = 4/4, Ed=1
Ed at B point = BE/AB = 6/2, Ed>1
Ed at A point = AE/0 = 8/0, Ed= infinity
Ed at C point = DE/AD = 2/6, Ed<1
Ed at E point = 0/AC = 0/8, Ed=0

VARIOUS DEGREES OF ELASTICITY OF DEMAND

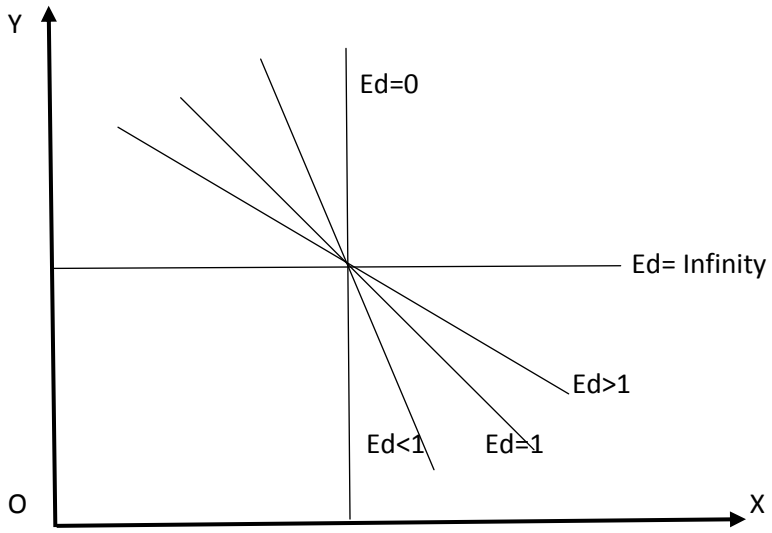
1. Perfectly Elastic Demand Curve (Ed=Infinity): Perfectly Elastic demand is a situation in which the quantity demanded changes without any change in price or insignificant change in price. In this situation demand, the curve is parallel to OX is the axis.

2. Perfectly Inelastic Demand curve (Ed=Zero): Perfectly inelastic demand is a situation in which the quantity demanded does not change with any change in price. In this situation demand, the curve is parallel to OY axis.

3. Unitary Elastic Demand Curve (Ed=1): Unitary Elastic Demand is a situation in which the proportionate change in price is equal to the proportionate change in quantity demanded.

4. Elastic Demand Curve (Ed>1): Unitary Elastic Demand is a situation in which the proportionate change in price is less than proportionate change in quantity demanded.

5. Inelastic Demand Curve (Ed<1): Unitary Elastic Demand is a situation in which the proportionate change in price is more than proportionate changes in quantity demanded.



If two demand curves are parallel or intersect each other, comparison of elasticity of demand.