

# ELASTICITY

# OF

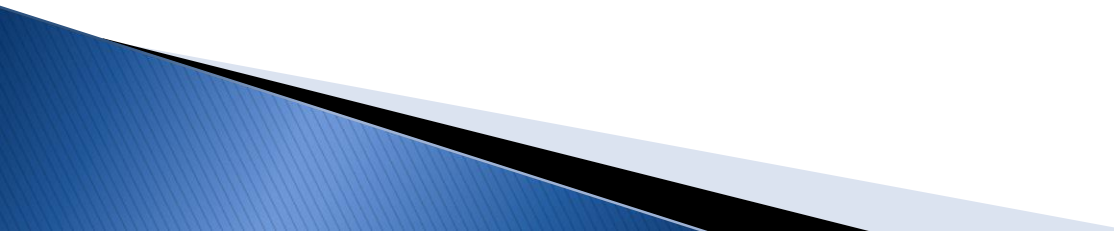
# DEMAND

BY;-  
DR ANJU JAIN  
HOD AND ASSOCIATE PROF.  
DEPT OF ECONOMICS

# LAW OF DEMAND

- ▶ LAW OF DEMAND states that ,other things being equal ,the amount demanded increases with a fall in price and diminishes when price increases. There is a inverse relationship between quantity demanded and price.
- ▶ LAW OF DEMAND Indicates only direction of change in quantity demanded in response to change in price but elasticity of demand states with how much or to what extent the quantity demanded will change in response to change in price.

# CONCEPT OF ELASTICITY

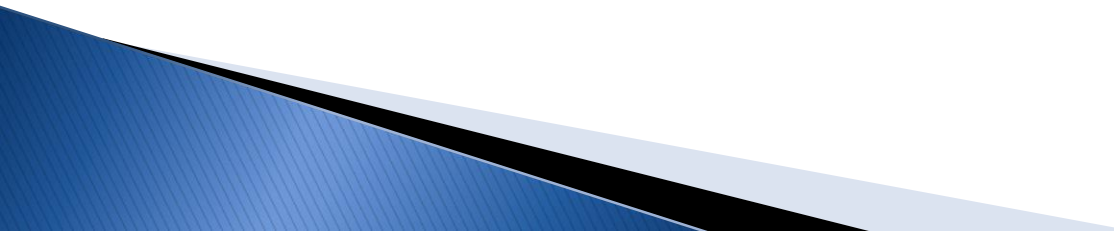
- ❖ If price rise by 10%–What happens to demand
  - ❖ We know demand will fall
  - ❖ By more than 10% ?
  - ❖ By less than 10% ?
  - ❖ Elasticity measures the extent to which demand will change.
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# Definition Of Price Elasticity Of demand

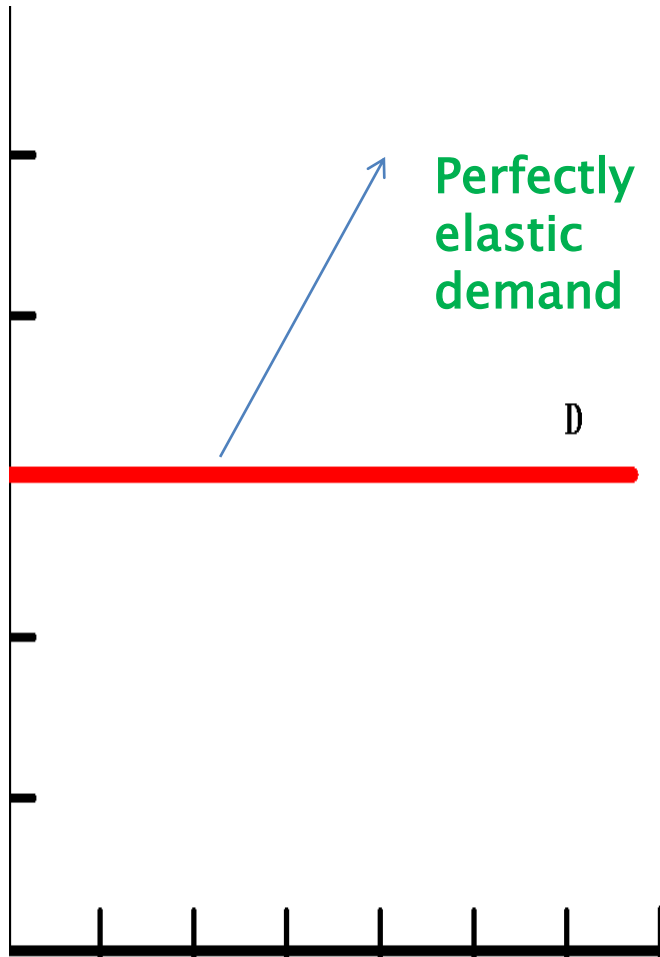
The change in the quantity demanded of a product due to a change in its price is known as sensitiveness or responsiveness of demand to change in price is as called elasticity of Demand

$$E_d = (-) \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

# Degrees Of Price Elasticity Of Demand

- ▶ 1) Perfectly Elastic demand
  - ▶ 2) perfectly Inelastic demand
  - ▶ 3) Unitary Elastic Demand
  - ▶ 4) More Than Unitary Elastic Demand
  - ▶ 5) Less Than Unitary Elastic Demand
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# PERFECTLY ELASTIC DEMAND

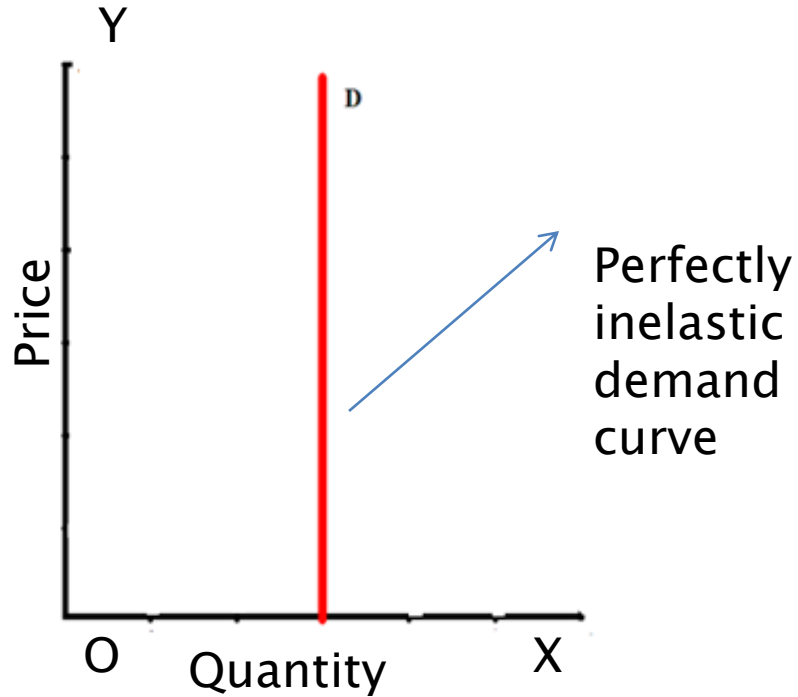


When the demand for a product changes  
–increases or decreases even when there is no change in price, it is known as

**Perfectly elastic demand.**

$$e = \infty$$

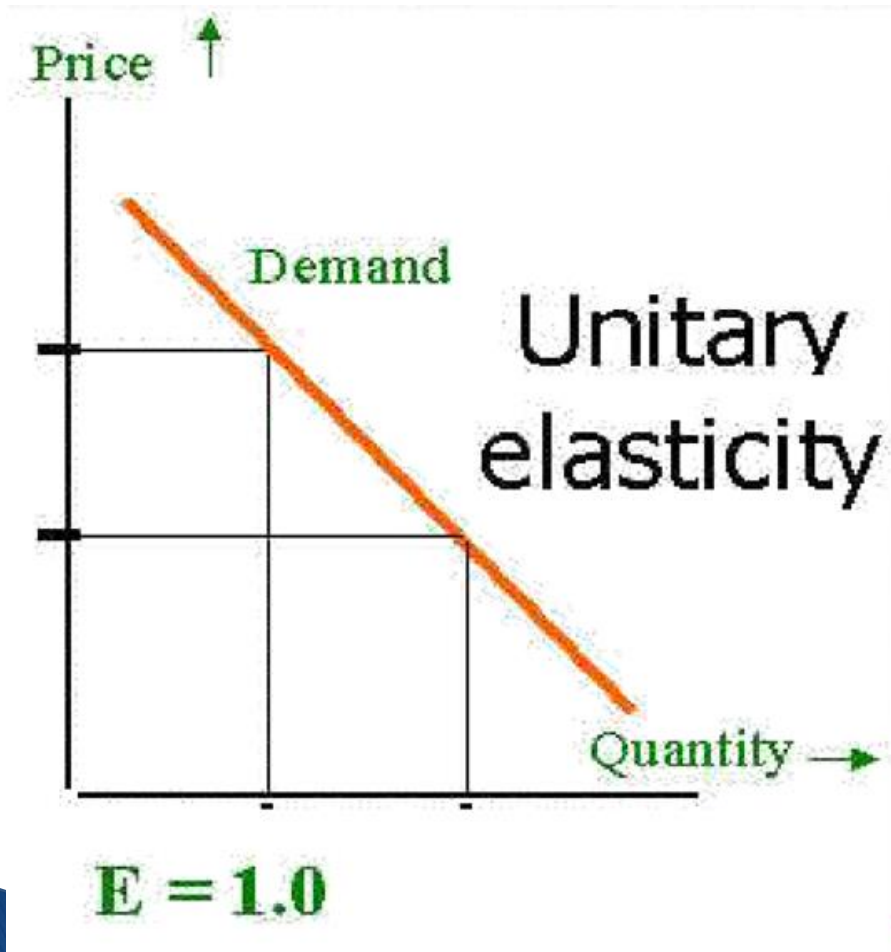
# PERFECTLY INELASTIC DEMAND



When a change in price, however large, changes quantity demanded, it is known as

**perfectly inelastic demand**  
 **$e=0$**

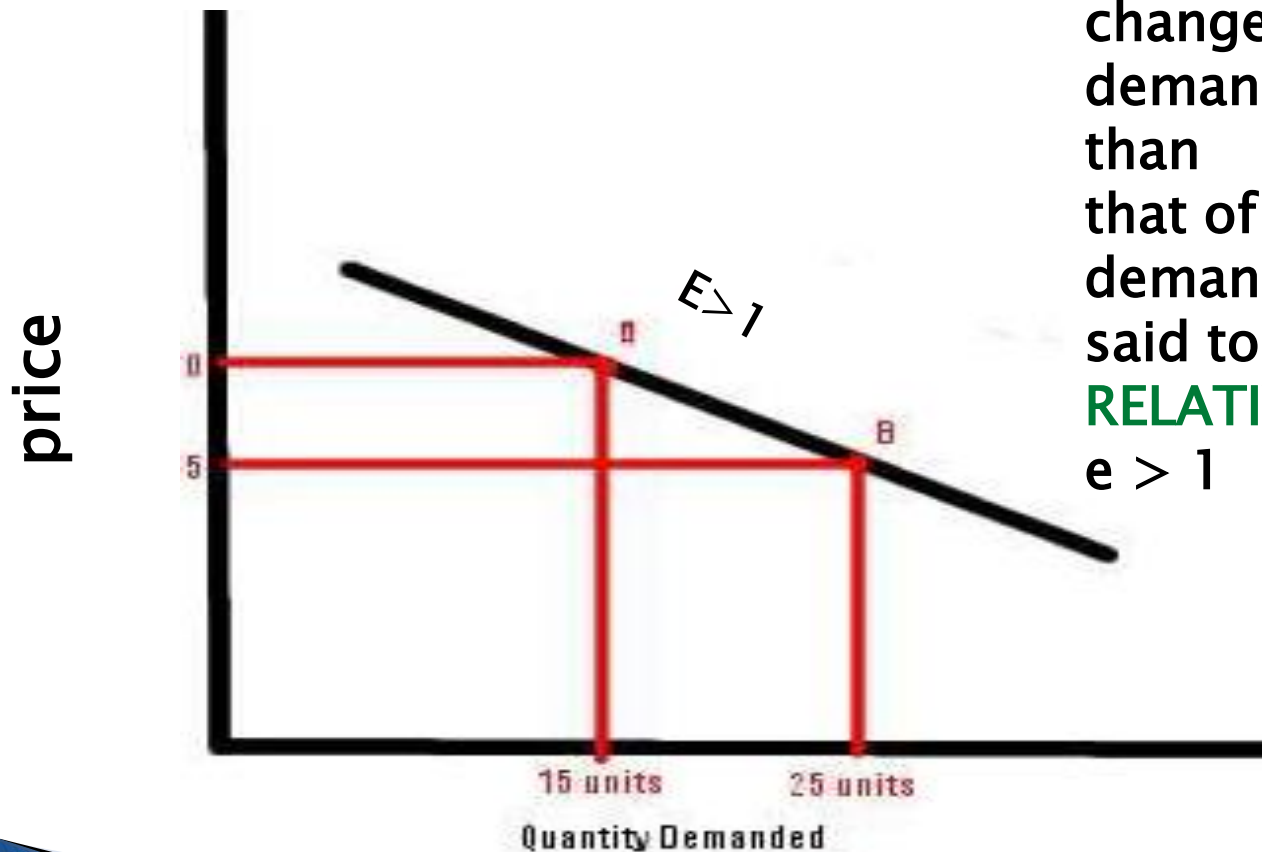
# UNITARY ELASTIC DEMAND



When the proportionate change in demand is equal to proportionate changes in price, it is known as **Unitary elastic demand.**  
 $e=1$

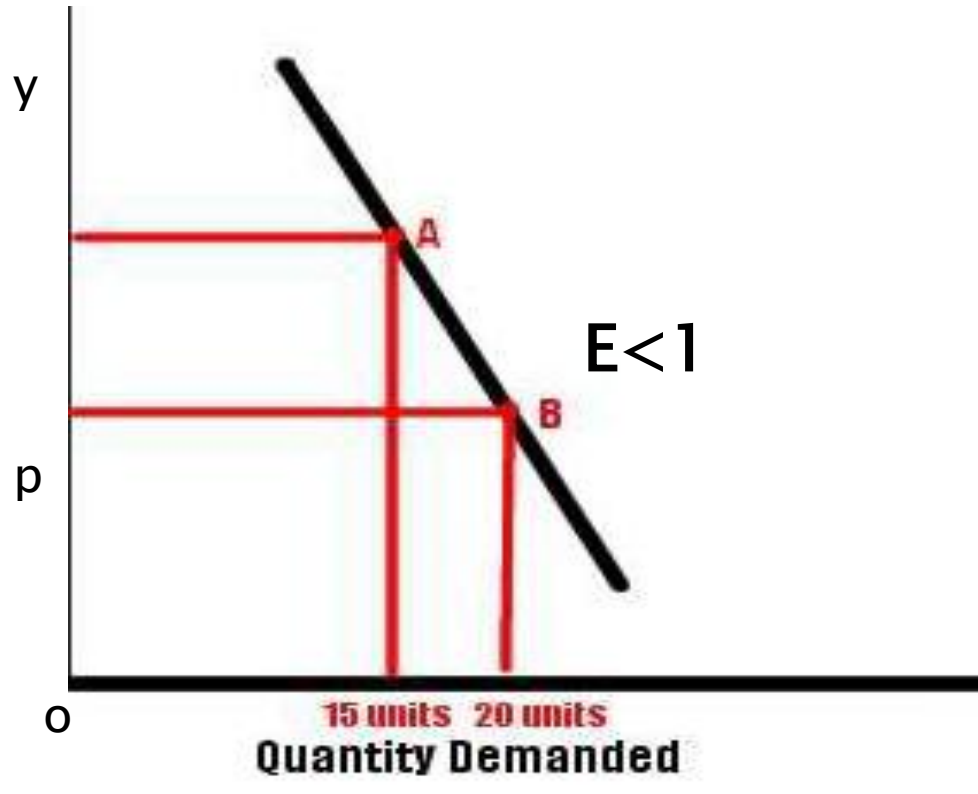


# MORE THAN UNITARY ELASTIC DEMAND



When the proportion of change in the quantity demanded is greater than that of price, the demand is said to be **RELATIVELY ELASTIC**  
 $e > 1$

# LESS THAN UNITARY ELASTIC DEMAND

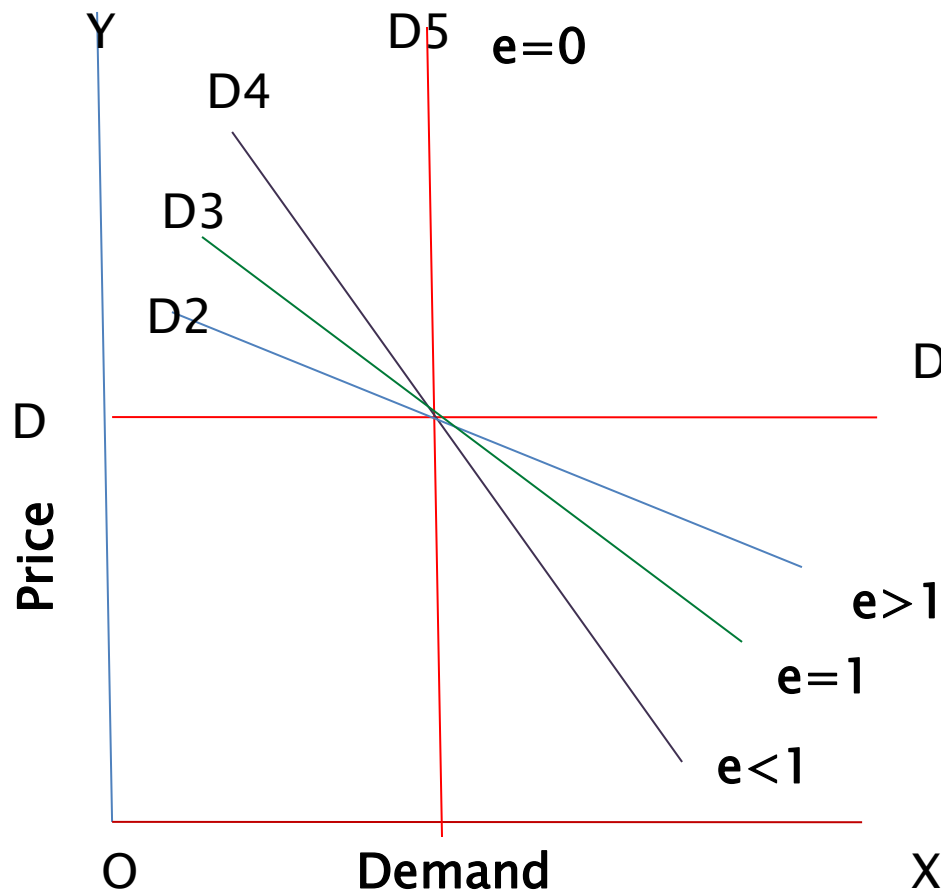


When the proportionate change in demand is less than the proportionate changes in price, it is known as **Relatively inelastic Demand**

$$e < 1$$

x

# ALL KINDS OF DEMAND CAN BE SHOWN IN ONE DIAGRAM



Where

D1 Perfectly elastic demand

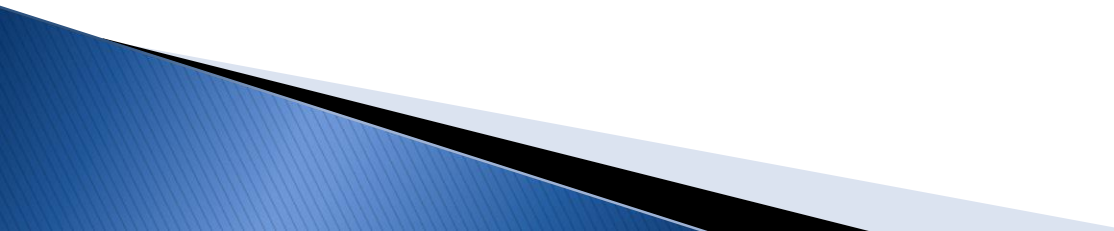
D2 Relatively elastic demand

D3 Elasticity of demand equal to unity

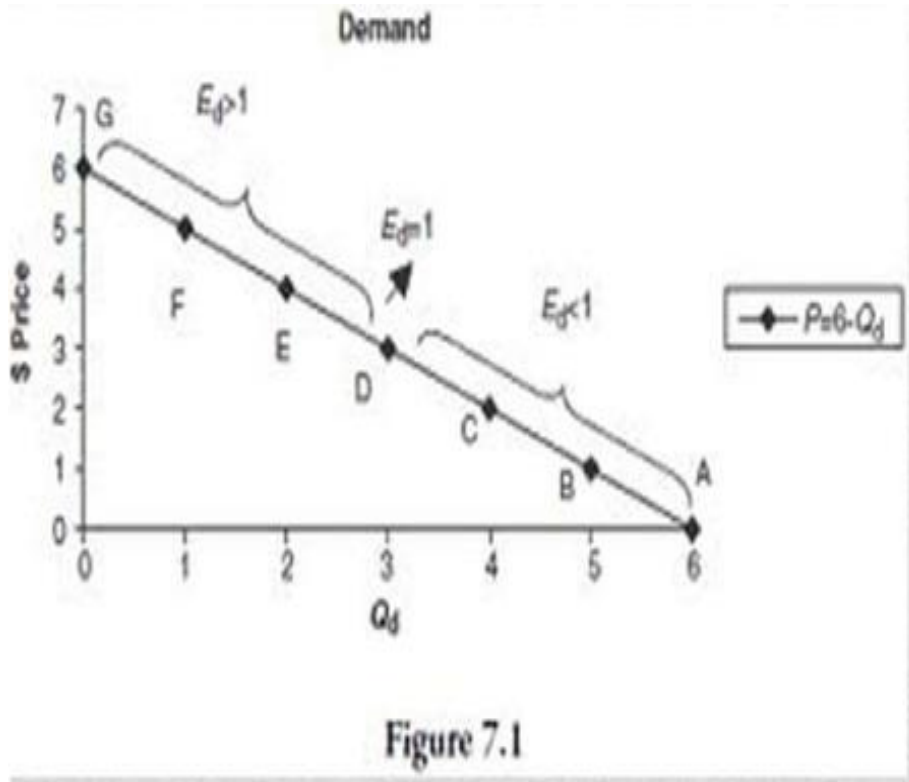
D4 Relatively inelastic demand

D5 Perfectly inelastic demand

# Methods of Measuring Price Elasticity Of Demand

- ▶ 1. Percentage method or proportionate method.
  - ▶ 2. Geometric method or point method.
  - ▶ 3. Total Expenditure Method
  - ▶ 4. Arc method.
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# Point/Geometric Method



## Point/Geometric Method

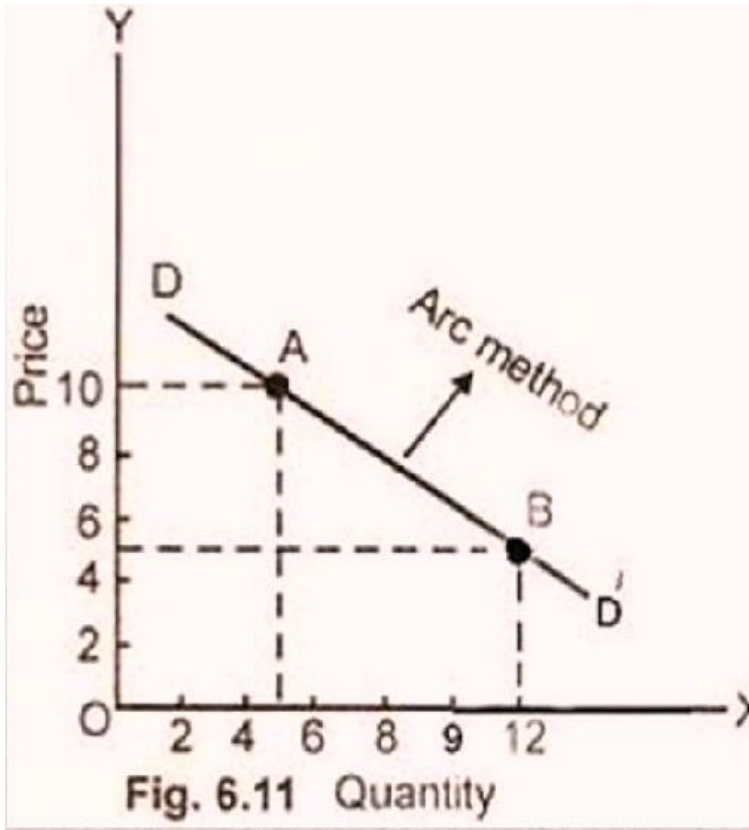
This method attempts to measure the price elasticity of demand at a particular point on demand curve

Point Elasticity =

Lower segment of demand curve below the point

Upper segment of demand curve below the point

# Arc Elastic Method



Arc Elasticity of Demand measures the elasticity at the mid point between two points on a curve

# Percentage or Proportionate method

- ▶ According to this method, for calculating the elasticity of demand, proportionate or percentage change is divided by proportionate or percentage change in price.

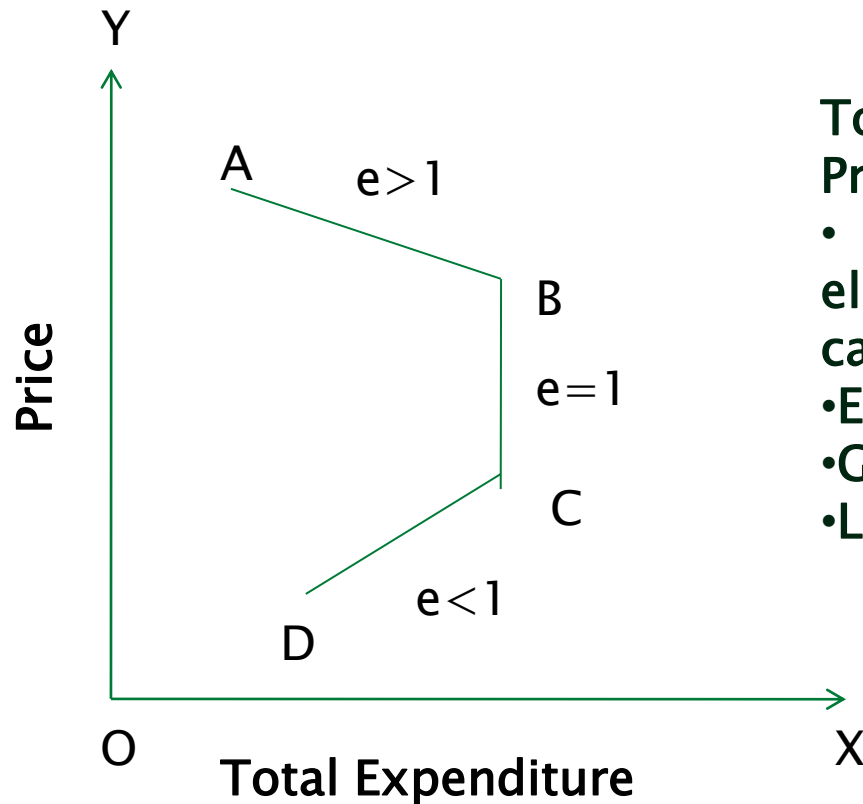
▶  $e_d = (-) \frac{\text{Proportionate or percentage change in demand}}{\text{Proportionate or percentage change in Price}}$

▶  $e_d = (-) \frac{\text{Change in Demand} \times 100}{\text{Initial demand}}$

$\frac{\text{Change in Price} \times 100}{\text{Initial Price}}$



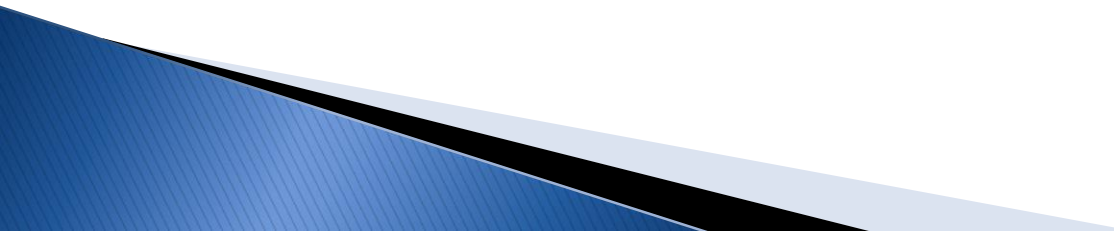
# Total Expenditure Method



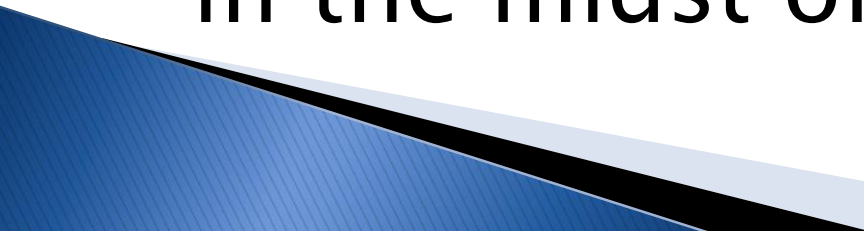
Total Expenditure = Commodity Price  $\times$  Commodity Demand

- Only three degrees of the elasticity of demand can be calculated by this method:
  - Equal to Unit Elasticity
  - Greater than Unit Elasticity
  - Less than Unit Elasticity.

# Factors Affecting Price Elasticity Of Demand

- ▶ Nature of the Commodity
  - ▶ Availability of Substitutes
  - ▶ Variety of uses of commodity
  - ▶ Postponement
  - ▶ Influence of habits
  - ▶ Proportion of Income spent on a commodity
  - ▶ Income groups
  - ▶ Elements of time
  - ▶ Pattern of Income distribution
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# Practical Importance of the Concept of Price Elasticity Of Demand

- ▶ Determination of Rates of Foreign Exchange
  - ▶ For Nationalization of Certain Industries
  - ▶ In economic Analysis ,the concept of price elasticity of demand helps in explaining the irony of poverty in the midst of plenty.
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# Practical Importance of the Concept of Price Elasticity Of Demand

- ▶ The concept is helpful in taking Business Decisions
  - ▶ Importance of the concept in formulating Tax Policy of the government
  - ▶ For determining the rewards of the Factors of Production
  - ▶ To determine the Terms of Trades Between two countries.
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