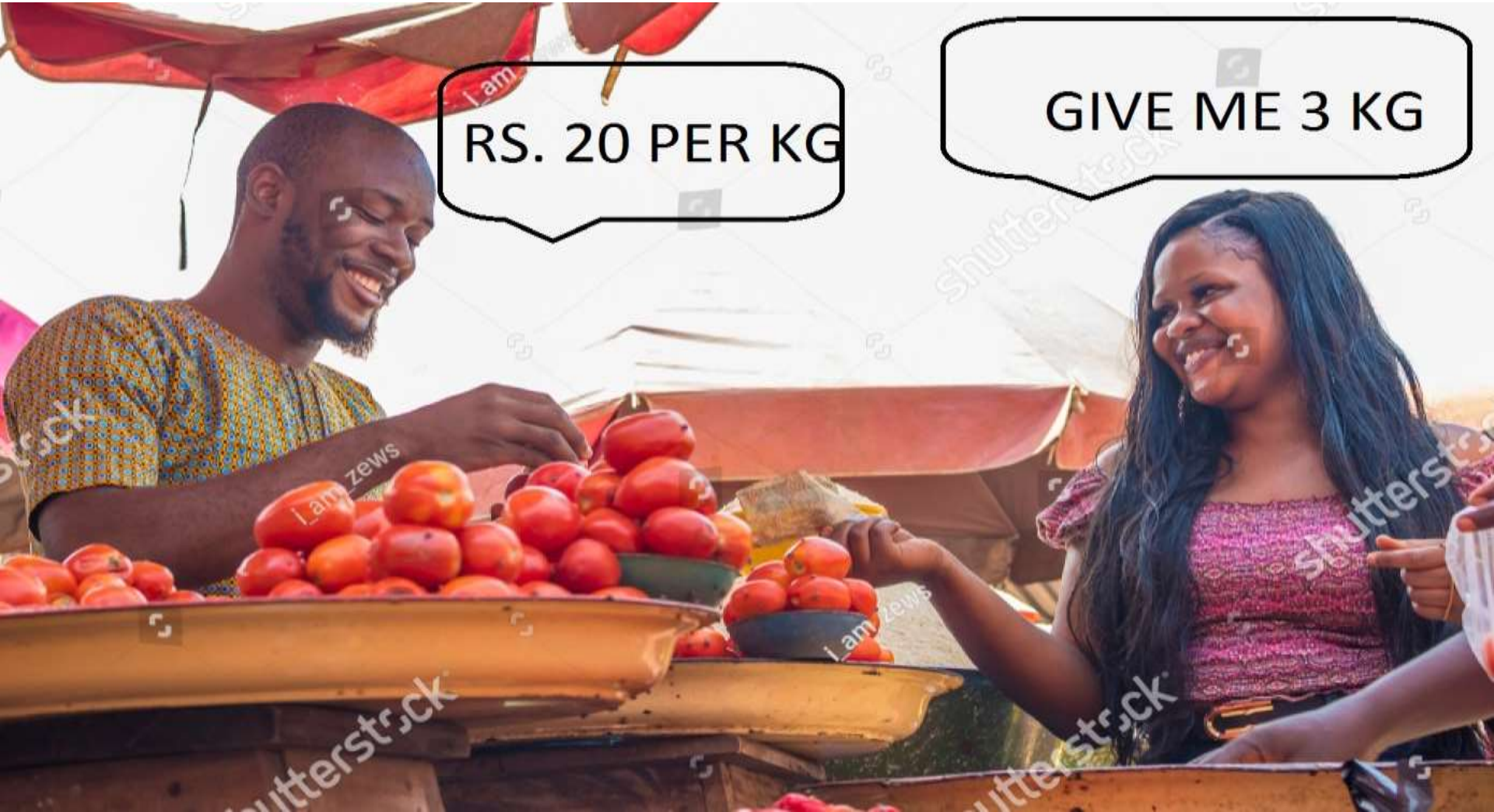
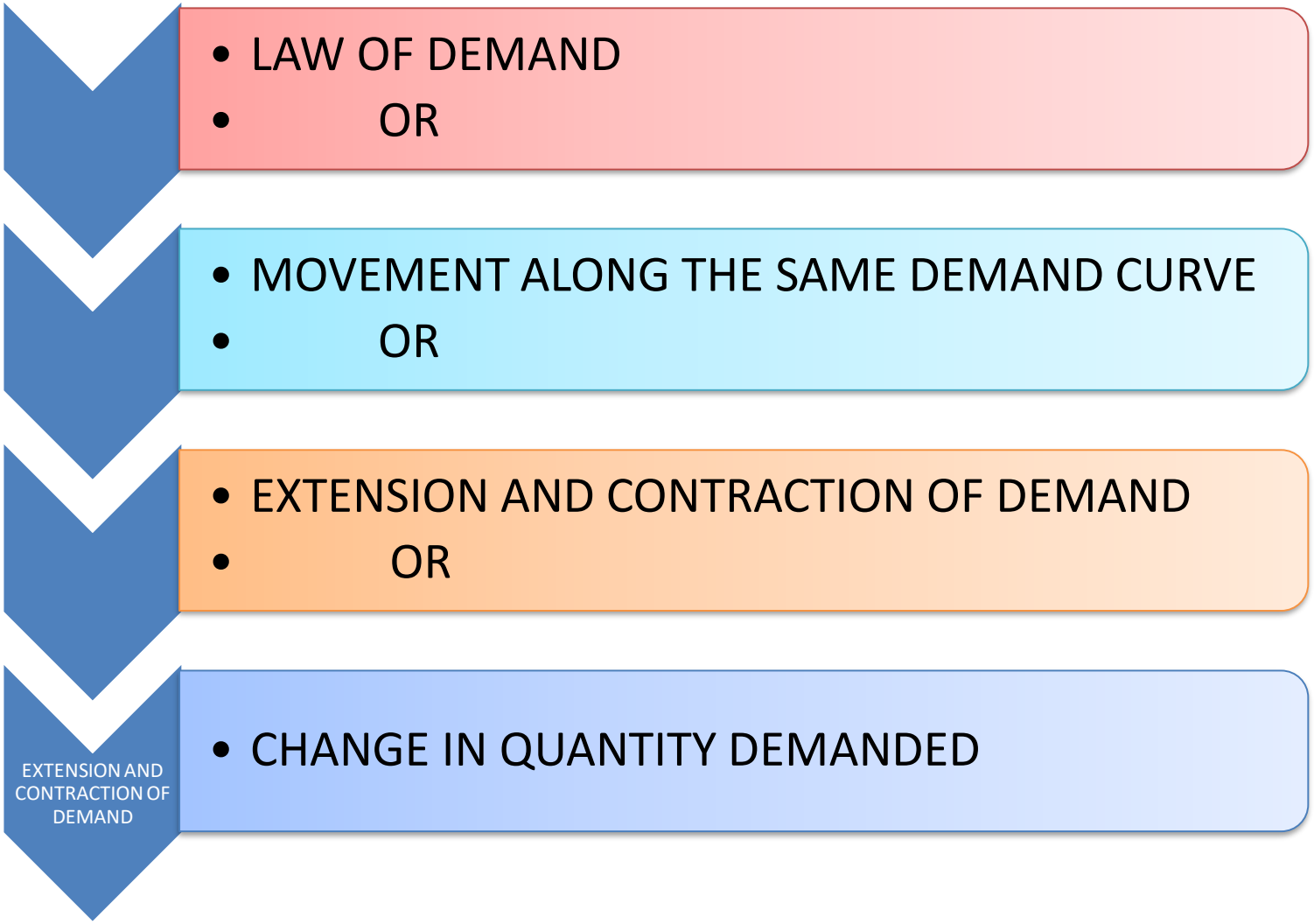
DEMAND

BY-NIRBHAY BHADRA JHA

- Demand is a desire backed by ability to pay and willingness to pay.

- Demand for a commodity refers to the quantity of a commodity which a consumer is willing to buy at a given price and in a given period of time.




• LAW OF DEMAND
• OR
• MOVEMENT ALONG THE SAME DEMAND CURVE
• OR
• EXTENSION AND CONTRACTION OF DEMAND
• OR
EXTENSION AND CONTRACTION OF DEMAND
• CHANGE IN QUANTITY DEMANDED

LAW OF DEMAND

Other things remaining the same, when the price of a commodity falls, demand for it expands, and when the price rises demand contracts.

ASSUMPTIONS OF THE LAW OF DEMAND

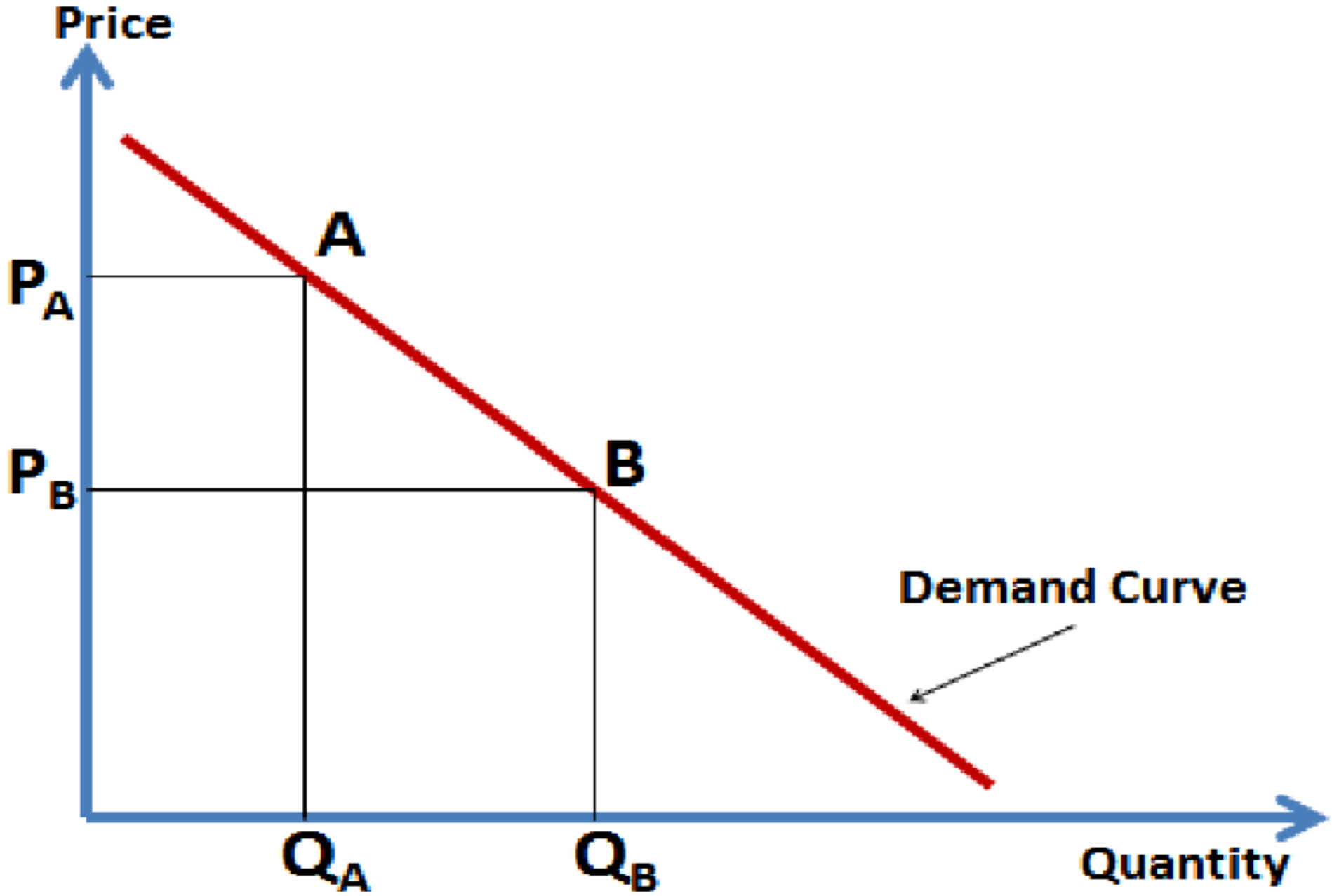
- The consumer is rational.
- There is no change in the price of related goods.
- Tastes and preferences of the consumer remain same.
- Population remains constant.
- There are no expectations about changes in future prices

DEMAND SCHEDULE

It is a tabular presentation that shows the relationship between quantity demanded and price.

PRICE	QUANTITY DEMANDED
50	1
40	2
30	3
20	4

- Demand Curve



EXCEPTIONS TO THE LAW OF DEMAND

1. GIFFENS GOODS

- They are inferior goods.
- The demand for Giffen's goods contracts when their prices fall.
- It is because people substitute them with superior goods.

2. DEMONSTRATION EFFECT

It means copying the acts of others.

Some people buy more units of a commodity even when their prices are rising just because others are buying it. It is called Demonstration Effect.

3. HABITS AND ADDICTIONS

- If a person is addicted to a commodity, he will not reduce the consumption of it even if the price rises.
- For example, a smoker may not reduce the consumption of cigarettes, even if the cigarette price is rising.

4. ESSENTIAL GOODS

- Increase or decrease in the prices of essential goods like medicines do not affect their demand.

5. VEBLEN'S EFFECT

Some people buy more of a commodity, even when their prices are rising just to maintain social status and prestige.

6. CLIMATE

The demand for woolen clothes increase in winter even if there is no change in price.

REASONS BEHIND THE LAW OF DEMAND
(Reasons behind the downward slope of demand curve

- Only a downward sloping curve can show the inverse relationship between price and quantity demanded.
- When price falls old buyers will buy more quantity. New buyers will start buying.
- When price falls, people may find new uses for the commodity.
- Rational consumers will reduce the quantity demanded when the price rises in order to equalise price with marginal utility.
- Fall in price leads to increase in real income. Consumer can buy more with the given money income

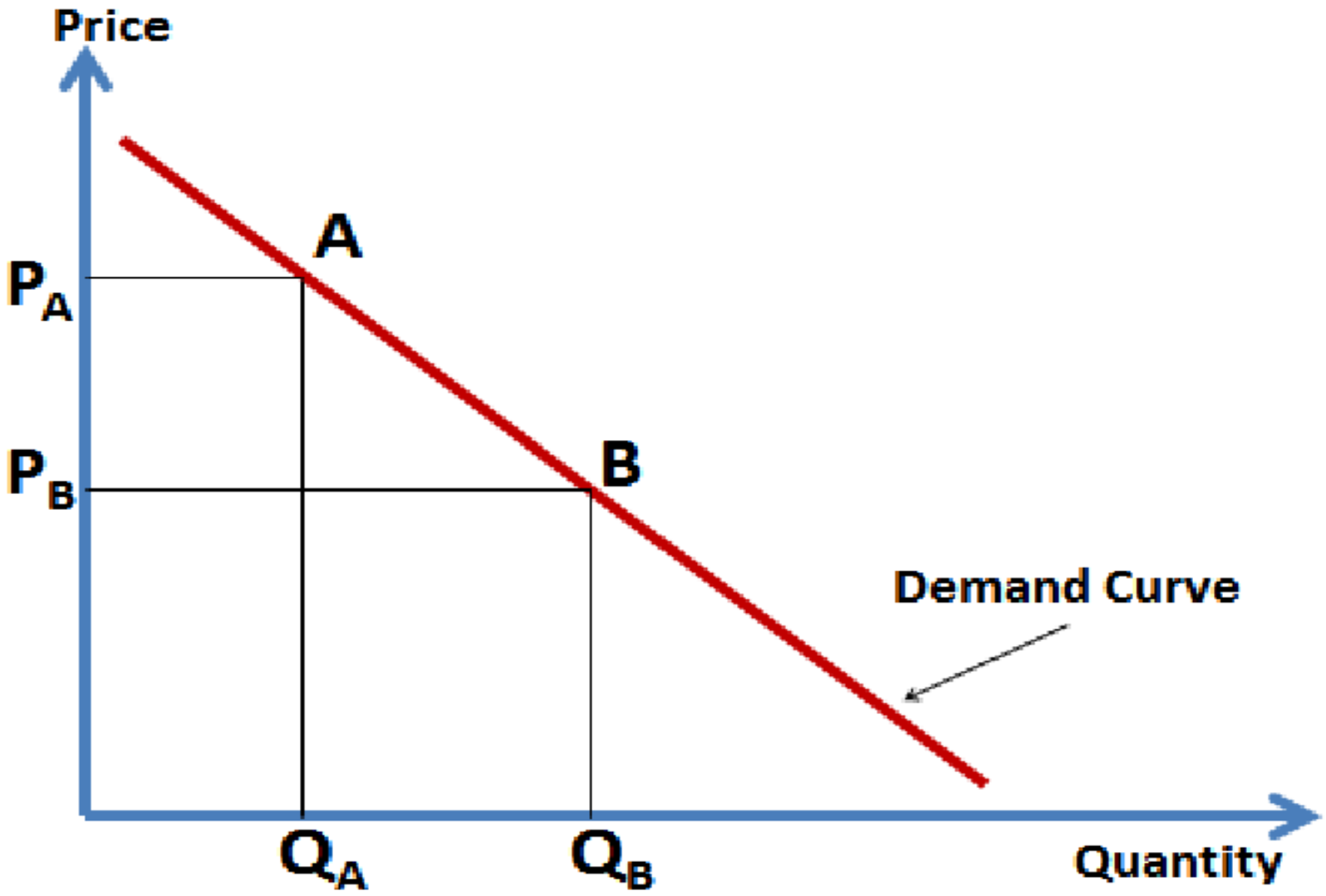
Individual Demand

INDIVIDUAL DEMAND

- It refers to the quantity of a commodity which an individual consumer is willing to buy at a given price and in a given period of time.

PRICE	QUANTITY DEMANDED
50	1
40	2
30	3
20	4
10	5

- INDIVIDUAL DEMAND CURVE



MARKET DEMAD = HORIZONTAL SUMMATION OF INDIVIDUAL DEMANDS

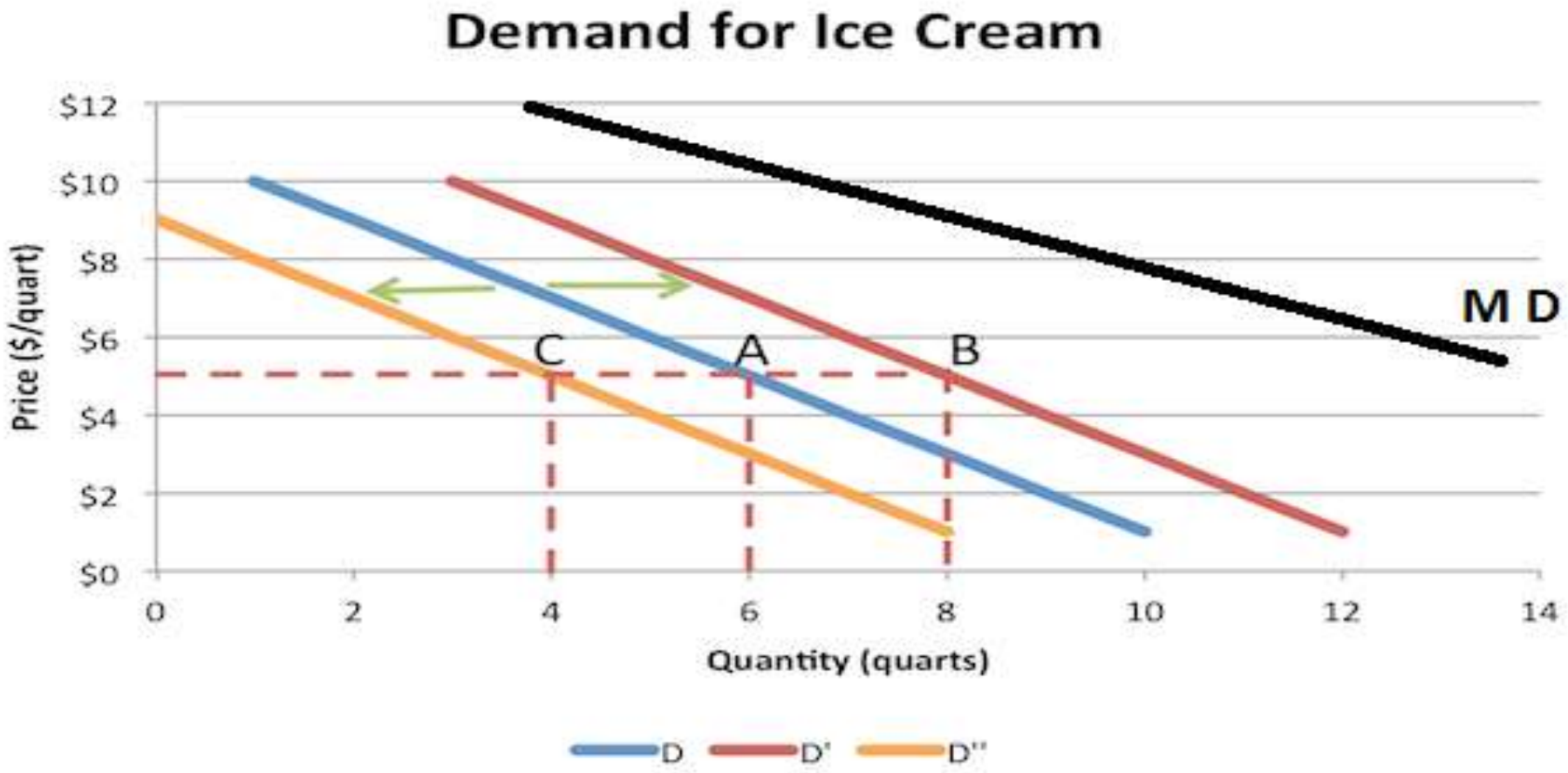
MARKET DEMAND
= 2 + 1 + 4 = 7 Kg

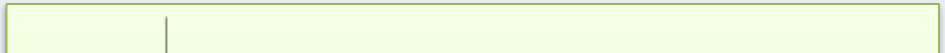
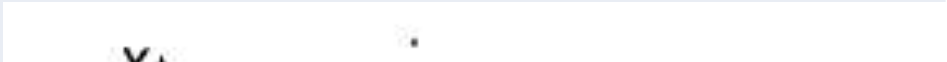
MARKET DEMAND

- It is the sum total of the quantities of a commodity demanded by all the consumers in a market at a given price and in a given period of time.

PRICE	QUANTITY DEMANDED BY A	QUANTITY DEMANDED BY B	QUANTITY DEMANDED BY C	MARKET DEMAND
10	5	4	3	**12**
8	8	6	5	**19**
6	12	10	8	**30**
2	15	12	10	**37**

Market Demand Curve (MD) is flatter than Individual demand Curves (C,A,B) because Market Demand is the horizontal summation of individual demands.



CHANGE IN DEMAND	CHANGE IN QUANTITY DEMANDED
Rise or fall in demand due to factors other than price.	Rise or fall in price due to change in price
Rise in demand is called increase in demand and fall in demand is called decrease in demand	Rise in demand is called extension or expansion in demand and fall in demand is called contraction in demand.
The demand curve will shift to the right in case of increase in demand and to the left in case of decrease in demand.	There is only a single demand curve. There will be rightward movement during expansion and leftward movement during contraction on the same demand curve
	

Factors That Cause a Demand Curve to Shift

(CHANGE IN DEMAND)

Income of the buyers

TASTES AND PREFERENCES

Expectations of future price

The price of related goods

POPULATION

- INCOME: In the case of normal goods increase in income leads to increase in demand. In the case of inferior goods, increase in income leads to decrease in demand.
- CHANGE IN TASTES HABITS AND FASHION: This will also lead to change in demand.

Example: Students a days prefer ball point pens. So, the demand for ball point pens is increasing and the demand for ink fountain pen is decreasing

- PRICE OF RELATED GOODS: Substitute Goods and Complementary Goods are related Goods
- In the case of substitute goods, the increase in the price of one good will lead to increase in the demand for the other good.
- For Example: Tea and Coffee are substitute goods. If the price of tea rises, people will substitute tea with coffee. So, demand for coffee will increase.
- In the case of complementary goods, the rise in the price of one good will lead to fall in the demand for the other good.
- For example: Car and Petrol are complementary goods. Rise in the price of car will lead to fall in the demand for petrol.

- POPULATION: Increase in population leads to increase in demand for goods and services and decrease in population leads to decrease in demand for goods and services.
- CREDIT FACILITIES: If banks offer loans for purchasing costly goods like cars, their demand will increase. Absence of credit facilities may lead to fall in demand for costly goods.

NORMAL GOODS Vs INFERIOR GOODS

1. **Normal Goods**
   - As income increases, demand increases
   - As income falls, demand falls
   - Ex: Luxury cars, Sea Food, jewelry, homes
2. **Inferior Goods**
   - As income increases, demand falls
   - As income falls, demand increases
   - Ex: Top Romen, used cars, used cloths,

NORMAL GOODS ARE INCOME POSITIVE

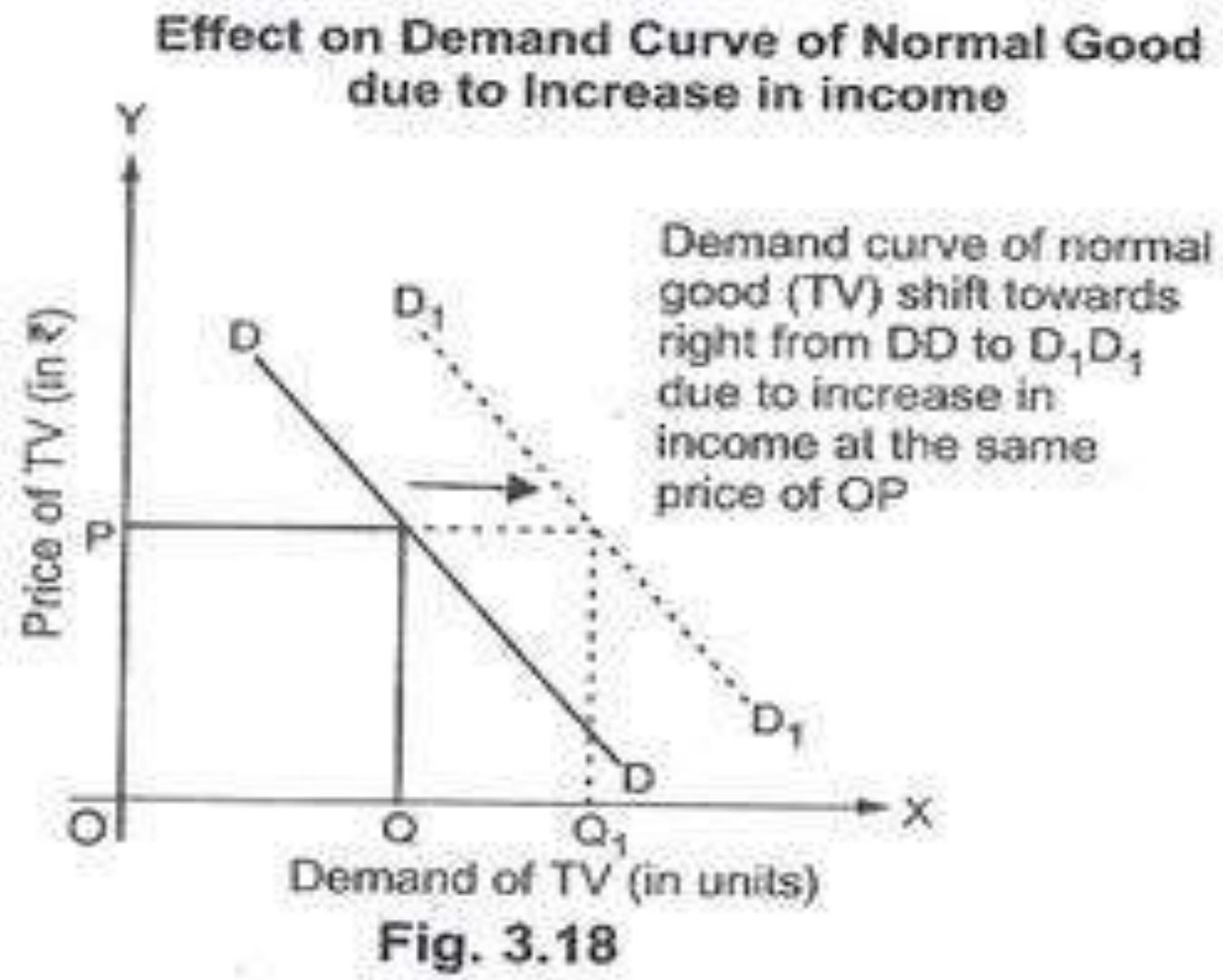
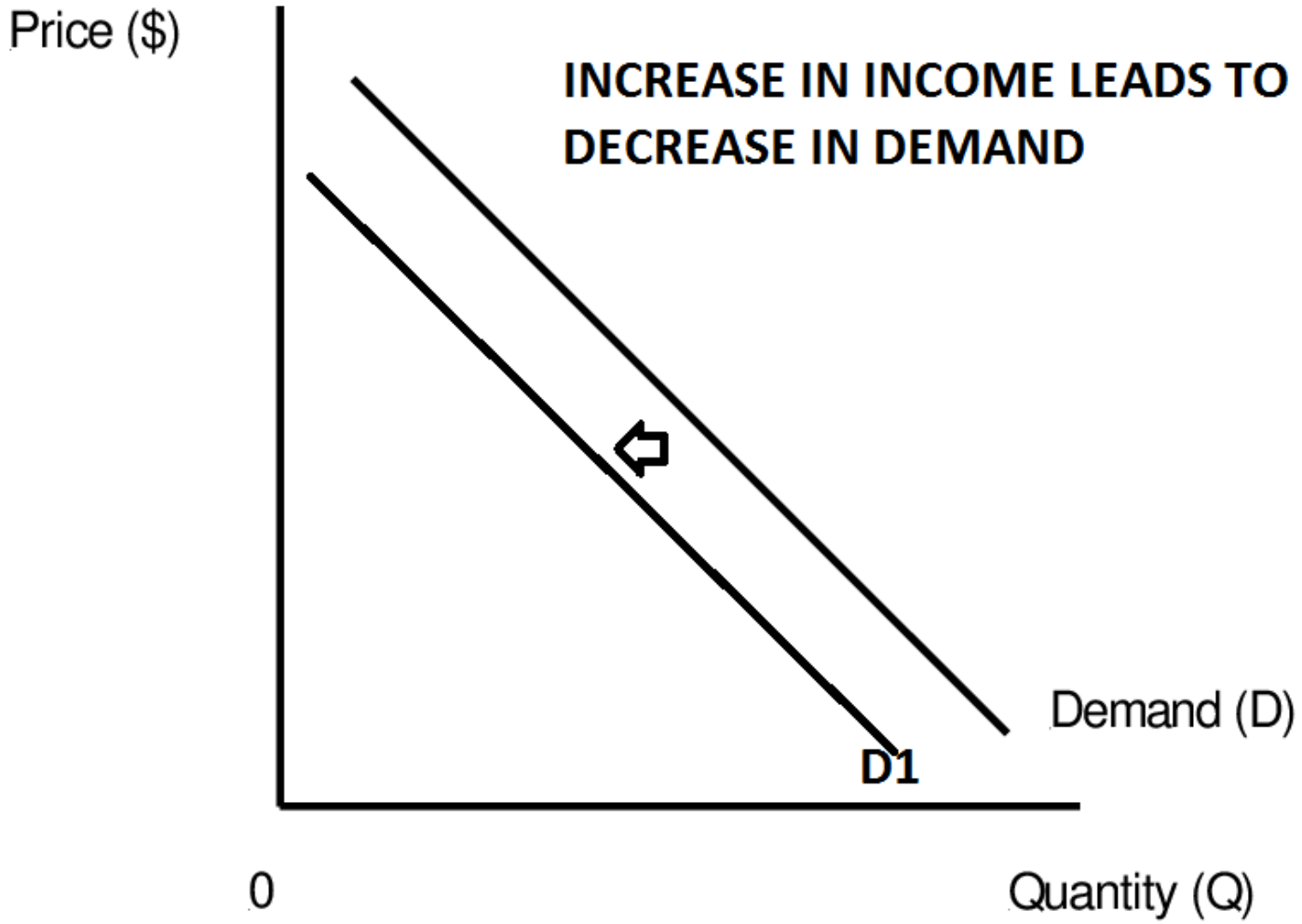


Fig. 3.18

INFERIOR GOODS ARE INCOME NEGATIVE




price
elasticity
of
demand
total
consumer
diminution
utilities
decrease
derivative
increase
percentage
income
unitary
run
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positive
producers
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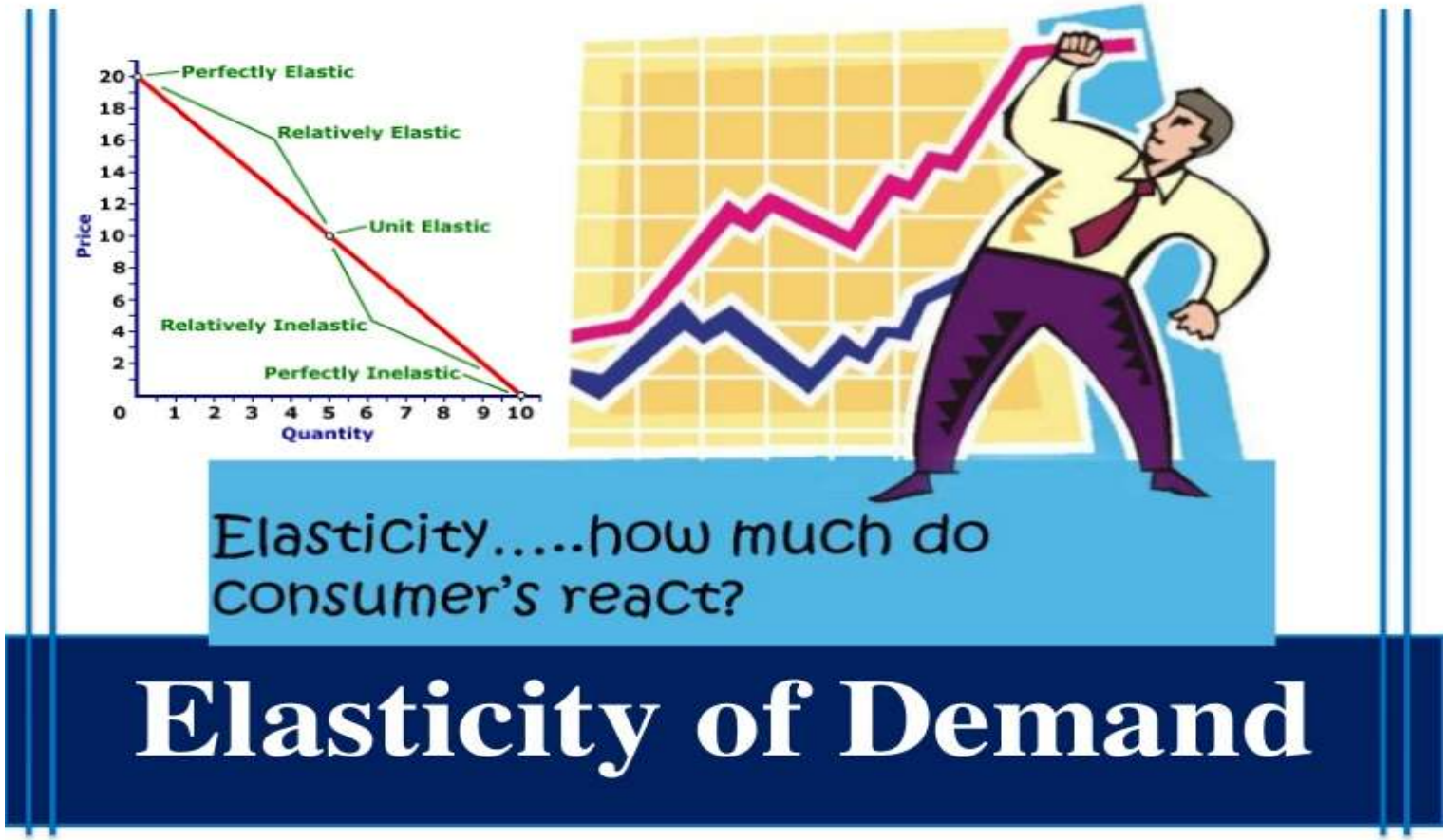
small
diminishes
section
substitute
durables
durable
change
greater
negative
combination
formula
definition
unit
midpoint
raised
law
higher
test
burden
general
determinants
differential
paint
conversely
absolute
values
responsiveness
elasticity
asymmetry
maximised
infinitesimal
constant
calculus
affect
conjoint
terms

PRICE ELASTICITY OF DEMAND

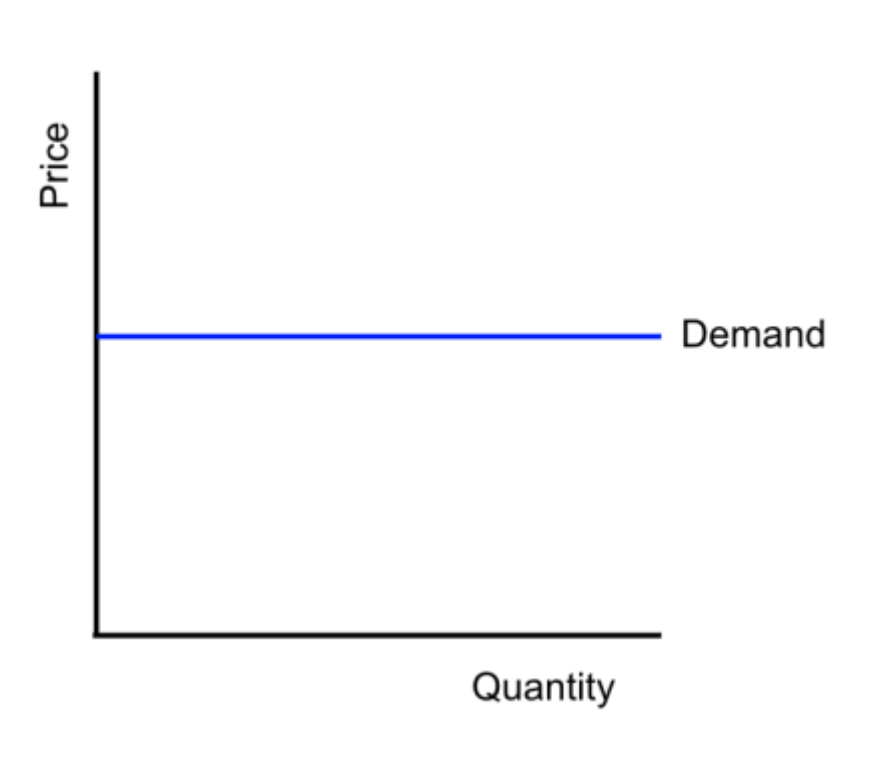
- Price elasticity of demand refers to degree of responsiveness of demand of a commodity to a change in its price



DEGREES OF ELASTICITY OF DEMAND

1. PERFECTLY ELASTIC DEAMND

- A small change in price leads to infinite change in quantity demanded. The demand curve is a horizontal line parallel to X axis.
- Ed = ∞

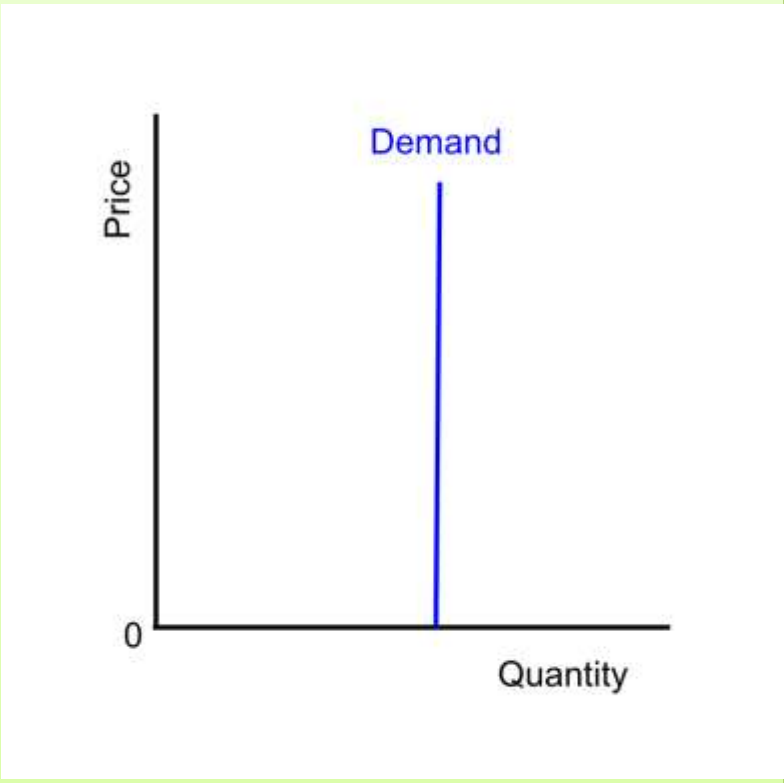


2. PERFECTLY INELASTIC DEMAND

- When change in price of a good does not cause any change in quantity demanded, it is called Perfectly Inelastic Demand. Demand curve is a straight line parallel to Y axis.
- Example: Demand for

  Medicines

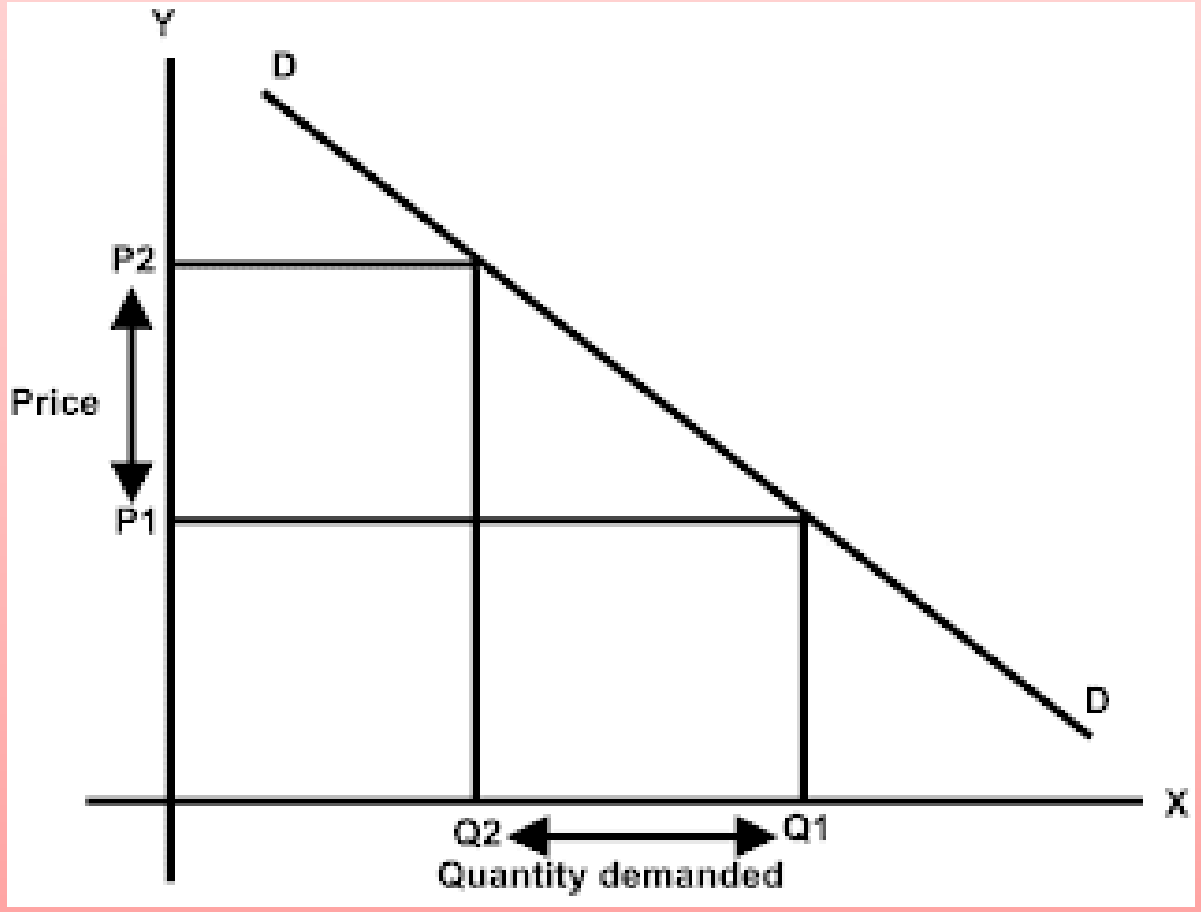
  Ed = 0



3. UNITARY ELASTIC DEMAND

Percentage change in Price and Percentage Change in quantity demanded are equal.

Ed = 1

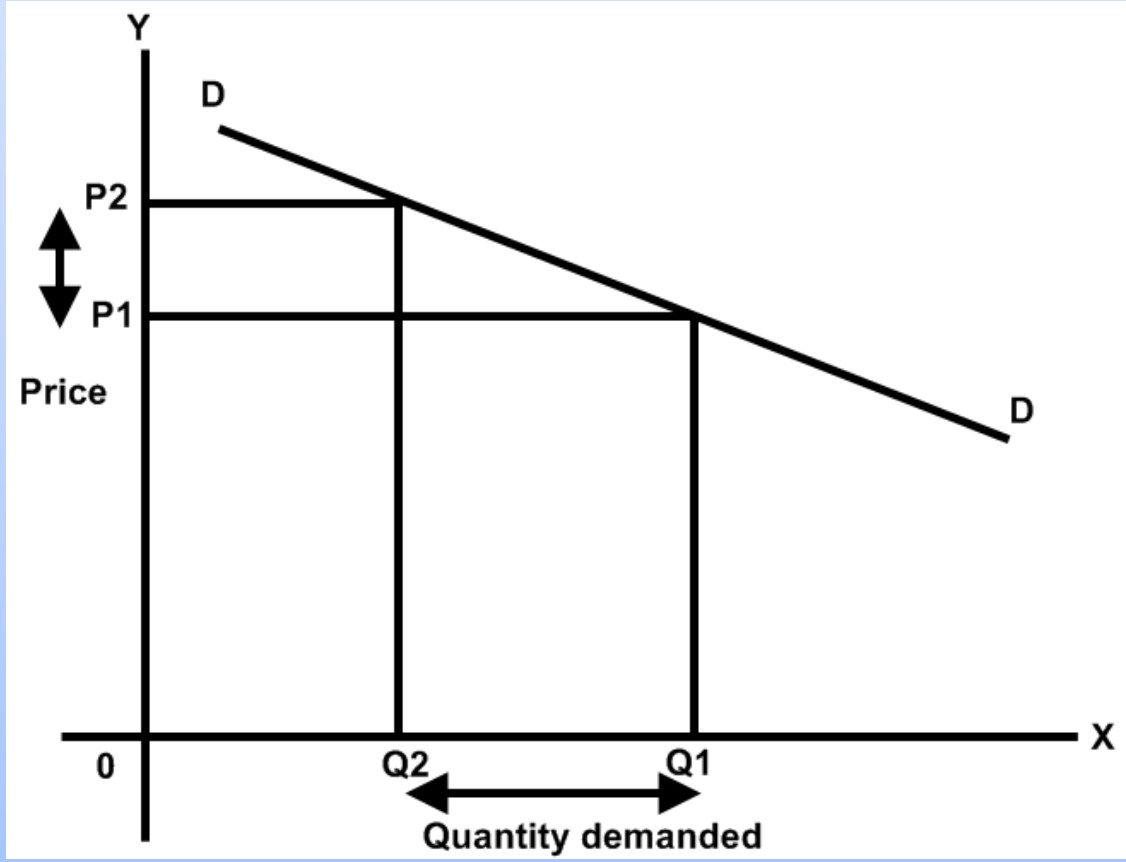


ELASTIC DEMAND

(RELATIVELY ELASTIC DEMAND OR GREATER THAN UNIT ELASTIC)

Percentage change in quantity demanded of a good is greater than percentage change in its price.

Ed > 1

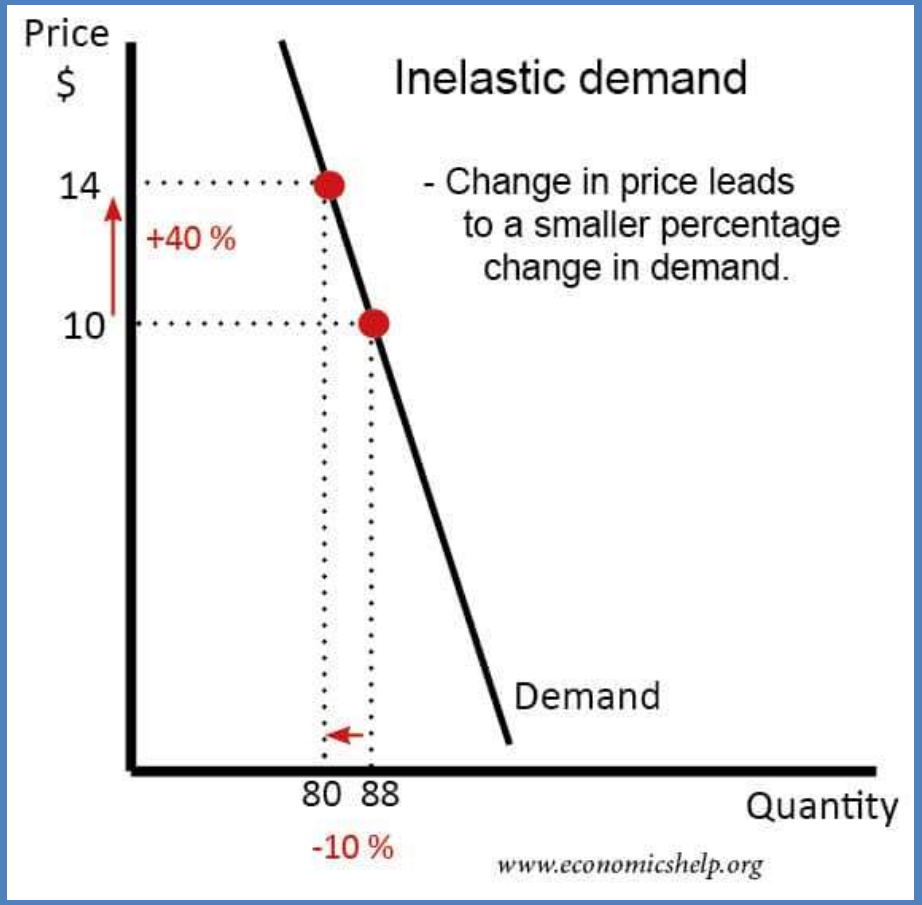


INELASTIC DEMAND

(RELATIVELY INELASTIC DEMAND OR LESS THAN ELASTIC DEMAND)

Percentage change in quantity demanded of a commodity is less than percentage change in its price.

Ed < 1



FACTORS THAT INFLUENCE PRICE ELASTICITY OF DEMAND OF A GOOD

(i) Nature of the Commodity:

The demand for essential goods like medicines and food materials is inelastic.

The demand for luxury goods is mostly elastic.

(ii) Proportion of income spent:

The goods on which we spend smaller proportion of our income are inelastic.

The consumer does not bother about the change in their prices. Ex: Salt, Match Box, Pencil.

- (iii) Several Uses:

  The commodities which have several uses like electricity, coal etc. have elastic demand.

  The fall in their prices will encourage consumer to uses them for new purposes.

(iv) Habits and Addiction: Demand for liquor and cigarette is inelastic because the consumer is addicted to them.

(v) Income Level:

Rich people do not bother much about price rise.

They do not reduce consumption even if price rises.

(vI) Availability of close substitutes:

The goods that have close substitutes have elastic demand.

The goods that do not have substitutes have inelastic demand.

PERCENTAGE CHANGE METHOD (PROPORTIONATE METHOD) OF CALCULATING PRICE ELASTICITY OF DEMAND

In this method elasticity is measured as a ratio of percentage change in quantity demanded of a commodity to its price.

$$Ed = \frac{Percentage\ Change\ in\ Quantity\ Demanded}{Percentage\ Change\ in\ Price}$$

OR

$$Ed = \frac{\Delta Q}{\Delta P} X \frac{P}{Q}$$

ΔQ – Change in Quantity ΔP – Change in Price

P – Original Price Q – Original Quantity.

NUMERICALS

1. The demand for a commodity falls by 40 % due to rise in its price by 20%. Calculate Price Elasticity of demand.

$$Ed = \frac{Percentage\ Change\ in\ Quantity\ Demanded}{Percentage\ Change\ in\ Price}$$

Percentage Change in Quantity demanded = (-) 40

Percentage Change in Price = 20

$$Ed = \frac{(-)40}{20} = \textbf{(-) 2 \%}$$

The demand is greater than unit elastic (Elastic Demand) .

2. The price of a commodity falls by 10%, its demand increases from 40 to 60 units. Calculate elasticity od demand.

$$Ed = \frac{Percentage\ Change\ in\ Quantity\ Demanded}{Percentage\ Change\ in\ Price}$$

Percentage Change in Price = (-) 10

$$\text{Percentage Change in Quantity} = \frac{\Delta Q}{Q} \text{x} 100$$

$$\Delta Q = 60 - 40 = 20 \text{ units} \qquad Q = 40$$

$$= \frac{20}{40} \text{ X } 100 = 50\%$$

$$Ed = \frac{50}{(-)10} = \textbf{(-) 5 . It is elastic demand}$$

3. When price of a commodity falls by 3% , its demand rises by 9%. Calculate Price Elasticity of Demand.

$$Ed = \frac{Percentage\ Change\ in\ Quantity\ Demanded}{Percentage\ Change\ in\ Price}$$

% Change in Quantity = 9

% Change in Price = (-) 3

$$Ed = \frac{9}{(-)3} = \textbf{(-) 3}$$

It is elastic Demand

4. The price of a commodity rises by 5%, its demand falls by 5%. Calculate Price elasticity of Demand.

$$Ed = \frac{Percentage\ Change\ in\ Quantity\ Demanded}{Percentage\ Change\ in\ Price}$$

% Change in Quantity = 5

% Change in Price = (-) 5

$$Ed = \frac{5}{(-)5} = \textbf{(-) 1}$$

It is unitary elastic demand

5. The price of a commodity increases from Rs. 10 to Rs. 15. Its demand falls by 40%. Calculate Elasticity of Demand.

$$Ed = \frac{Percentage\ Change\ in\ Quantity\ Demanded}{Percentage\ Change\ in\ Price}$$

Percentage Change in Quantity = (-) 40

$$\text{Percentage Change in Price} = \frac{\Delta P}{P} \text{x} 100$$

$$\Delta \text{P} = 15 - 10 = 5 \text{ units} \quad \text{P} = 10$$

$$= \frac{5}{10} \text{X } 100 = 50\%$$

$$\text{Ed} = \frac{(-)40}{50} = \textbf{(-) 0.8. It is inelastic demand.}$$

6. The price of a commodity falls from Rs. 10 to Rs. 8 per unit. Its demand increases from 40 to 50 units. Calculate elasticity of demand.

$$Ed = \frac{\Delta Q}{\Delta P} X \frac{P}{Q}$$

$$\Delta Q = 50 - 40 = 10$$

$$\Delta P = 8 - 10 = (-)\ 2$$

$$P = 10 \qquad Q = 40$$

$$Ed = \frac{10}{(-)2} X \frac{10}{40} = \textbf{1.25 Elastic demand}$$

7. Price of a commodity falls from Rs.10 to Rs. 6 per unit. Its demand increases from 40 to 80 units. Calculate Price elasticity of Demand.

$$Ed = \frac{\Delta Q}{\Delta P} X \frac{P}{Q}$$

$\Delta Q = 80 - 40 = 40$

$\Delta P = 6 - 10 = (-)\ 4$

$P = 10 \qquad Q = 40$

$$Ed = \frac{40}{(-)4} X \frac{10}{40} = (-)\ 2.5$$ **Elastic demand**


thank
you