

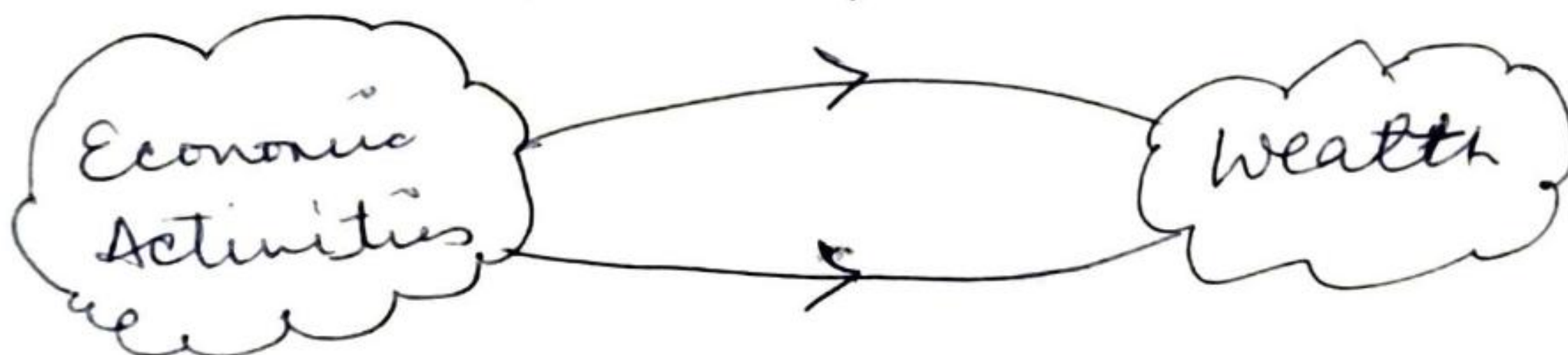
First of all 1776, Adam Smith is the father of Economics. "An Enquiry about the nature and causes of the wealth of Nations" is a famous book given by this author.

Acc. to J.S. Mill :- Economics Investigates into the nature of wealth.

Acc. to J.B. Say :- Economics is the science which treats of wealth.

Acc. to Walter :- Economics is the body of knowledge which relates to wealth.

Opinion of Classical Economists



Acc. to Alfred Marshall :- Economics is a study of man's actions in the ordinary business of life. It enquires how he gets his income and how he uses it. Thus it is on one side of study wealth and on the other side, a part of study of man.

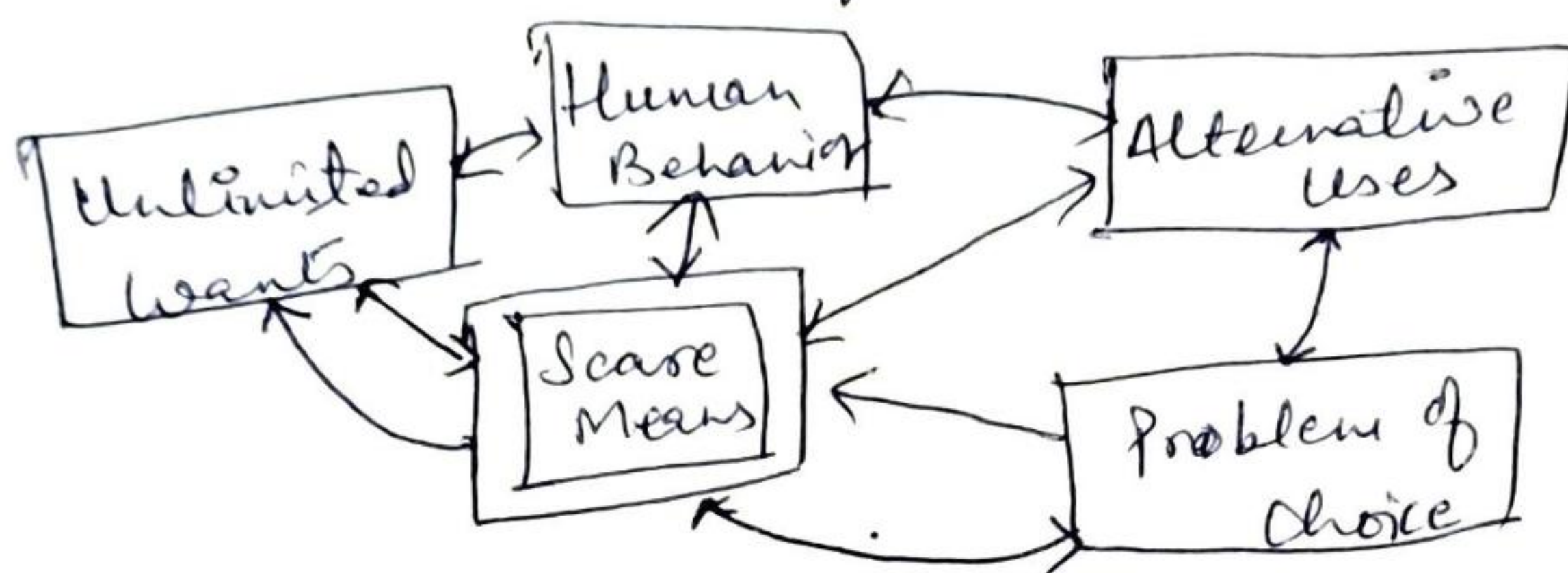
Opinion of neo-Classical Economists



Acc. to Robbins, Economics is the Science which studies human behavior as a relationship between ends and scarce means which have alternative uses.

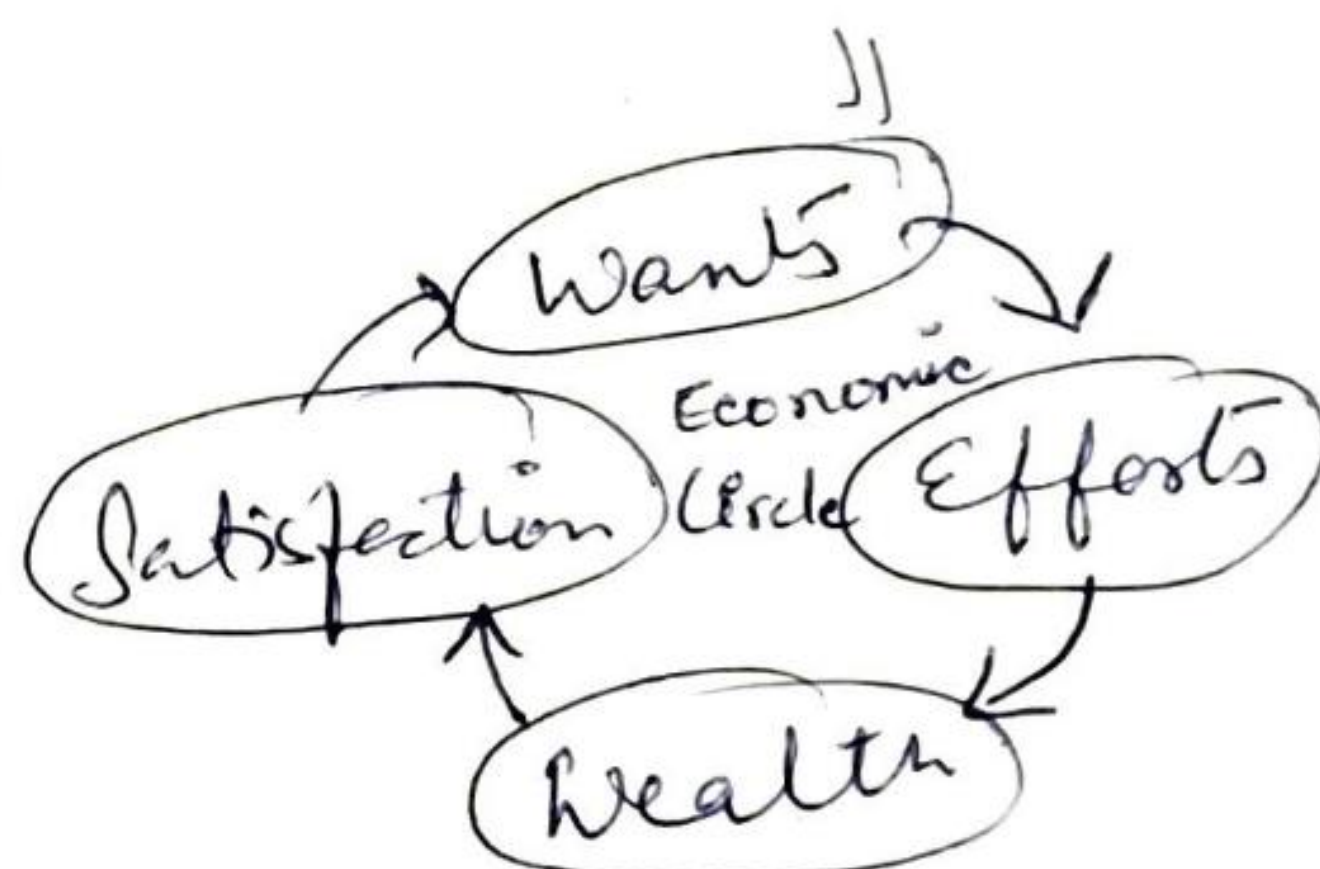
It is the study of how men allocate limited resources to provide for their wants.

Opinion of Robbins



Features

- (1) Ends - Unlimited wants
- (2) Scarce Means
- (3) Alternative Uses
- (4) Wants differ in urgency
- (5) Problem of Choice



Scope of Economics -

- (1) Subject Matter of Economics
- (2) Nature of Economics
- (3) Limitation of Economics

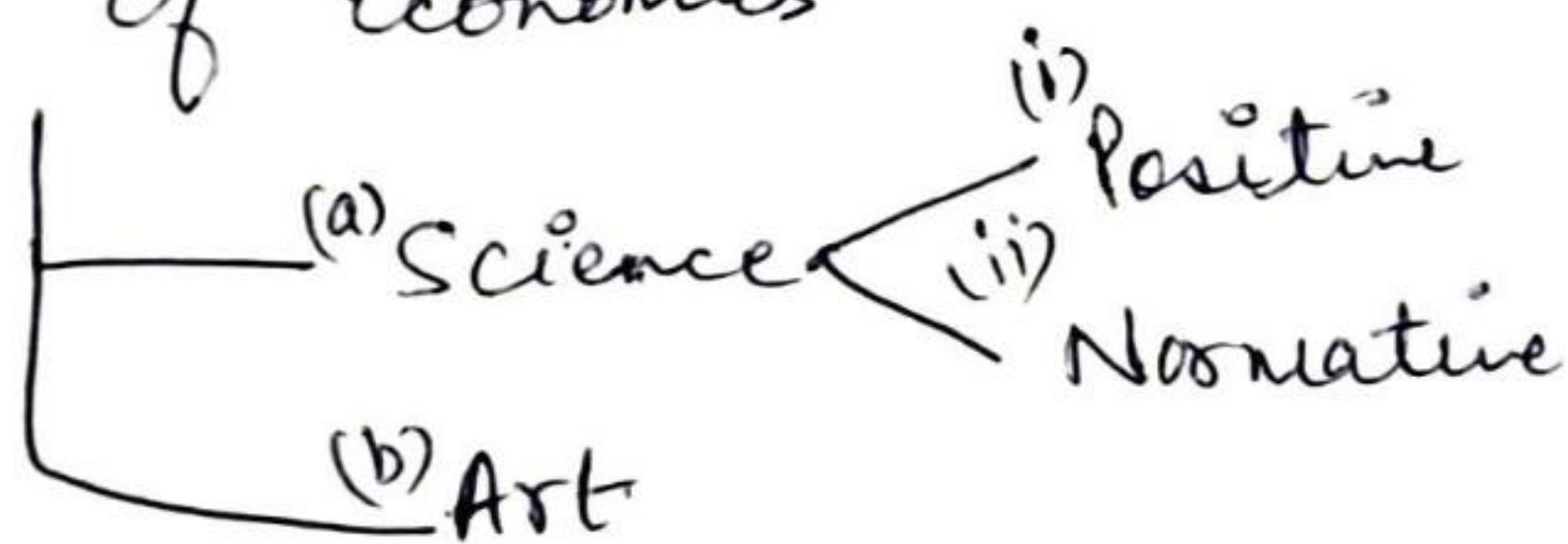
- (1) Subject matter of Economics - Wootton said whenever six economists gather, there are seven opinions. Acc. to him, Economics is related to those efforts of human beings which they undertake to obtain scarce resources to obtain scarce resources in order to satisfy their limited wants.

In reality, scope of Economics is very vast. As we all know that man has limitless wants, means to satisfy these wants are scarce. In order to satisfy his wants, man makes efforts and thus produces goods and services. As a result of these efforts they earn wealth, & the help of these goods and wealth they satisfy their wants. When a particular want is satisfied, another want crops up. So this economic circle goes on as long as man is alive.

Wants → Efforts → Wealth → Satisfaction.

- Types -
- (1) Production
 - (2) Consumption
 - (3) Distribution
 - (4) Exchange
 - (5) Price
 - (6) Finance

(2) Nature of Economics



(a) Economics as a Science

It is a systematic study of knowledge which traces the relationship between cause and effect.

- (i) Systematic Study
- (ii) Cause and Effect Relationship
- (iii) Universal Laws
- (iv) Experiments
- (v) Scale of Measurements

(i) Economics as a positive science

Acc. to J.N. Keynes, It is defined as a body of systematised knowledge concerning what is.

It explains the real picture of a subject. It establishes the cause & effect relationship of a particular event.

It confines the accurate description of a phenomenon, it explains what is, how it works and what are its effects. What, how and why.

Favour of Economics as positive science -

- Logical Base
- Based upon Principle of Division of Labour
- Fear of Confusion
- Formulation of Theories.

(ii) Economics as a Normative science

Acc. to J.N. Keynes, It is a body of systematic knowledge relating to the criteria of "what ought to be". It is the determination of ideals. It discusses what are desirable things and should be realised and what are undesirable things and should be avoided. It gives decisions related to future predictions and regarding value judgements.

Favour of Economics as normative science -

- Man is not only logical but also sentimental
- Not only light Bearing but also fruit Bearing
- A means of Social Betterment
- Basis of Economic Planning
- Cannot be separated from Ethics

(b) Economics as an Art

Acc to J.N. Keynes, An art is a system of rules for the attainment of a given end/result. Arts directs imposes precepts or proposes rules, it solve general problems. A science teaches us to know but an art teaches us to do.

Favour of Economics as an Art -

- Solution of the problems
- Most of the Economists spend much time on solving economic problems.
- Verification of Economic laws.

(3) Limitations of Economics

- (1) Study of Human Activities only
- (2) Study of Economic Activities only
- (3) Study of Social Man
- (4) Study of Average or Normal Man
- (5) Measuring Rod of money
- (6) Science and Art.

Conclusion: - Study of Economics is instrumental in making us good citizens, efficient consumers, progressive producers and excellent organisers.

• • = • •

Elasticity of DemandDefinition

Acc. to Lipsey and Chrystal, "The percentage change in the quantity demanded divided by percentage change in price that brought it about."

Methods of measuring price elasticity of demand -

① The Percentage Method - It is defined as the value of the relative (percentage) change in the quantity of a commodity demanded to the relative change in its price.

$$E_d = \frac{\text{Proportionate (\%) change in quantity demanded}}{\text{Proportionate (\%) change in the price}}$$

$$|E_d| = - \frac{P}{Q} \times \frac{\Delta Q}{\Delta P}$$

P = price

Q = quantity demanded

ΔP = change in price

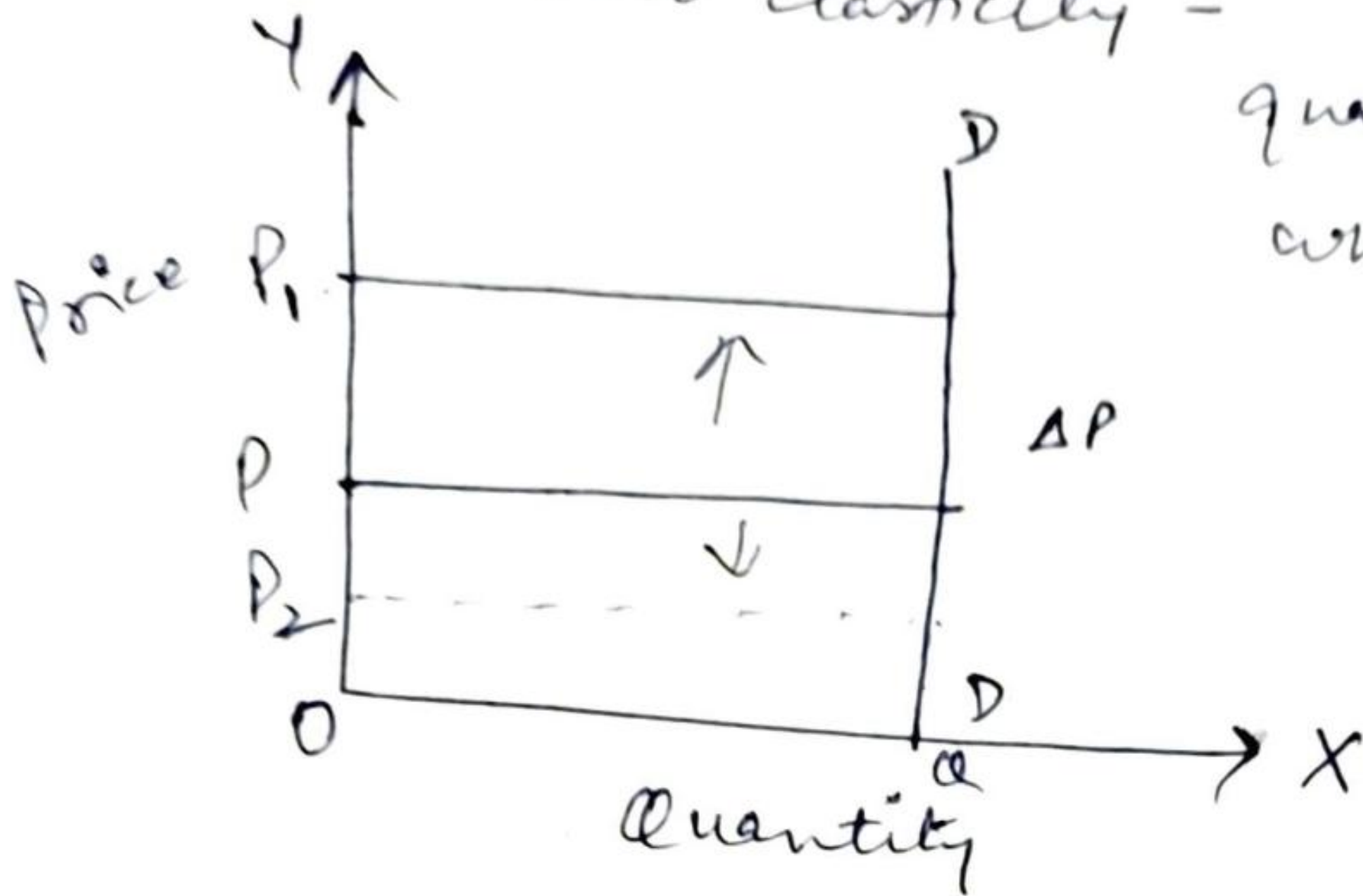
ΔQ = change in quantity

E_d = Elasticity of demand

Types / Degrees of Price Elasticity of Demand.

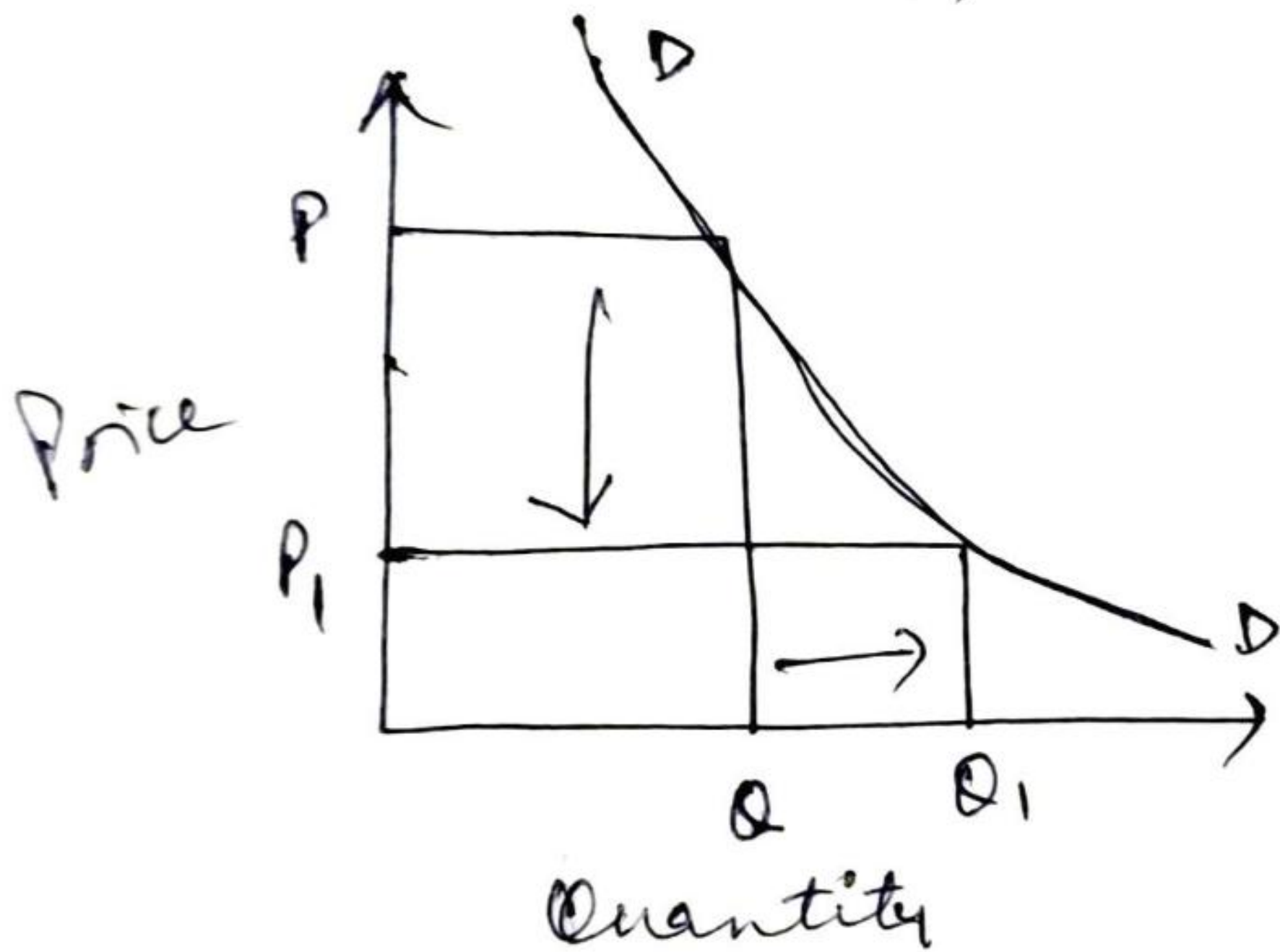
(1) Perfectly Inelastic Demand \rightarrow

Zero Elasticity - no change in quantity demanded when price changes.



$$\Rightarrow Ed = 0$$

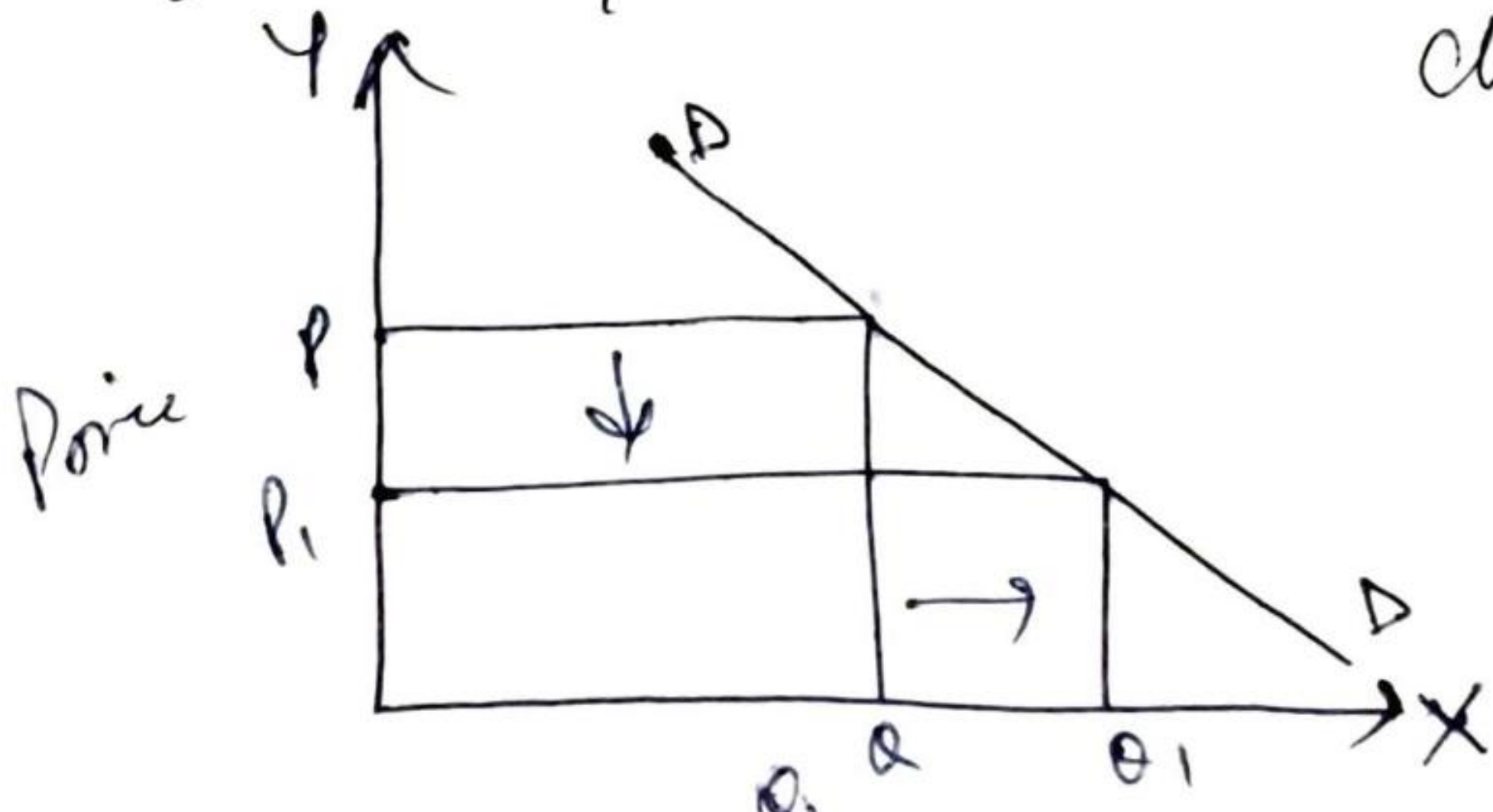
(2) Inelastic Demand $\Rightarrow Ed < 1$



change in price is more than change in quantity demanded.

$$Ed = \text{Less than one}$$

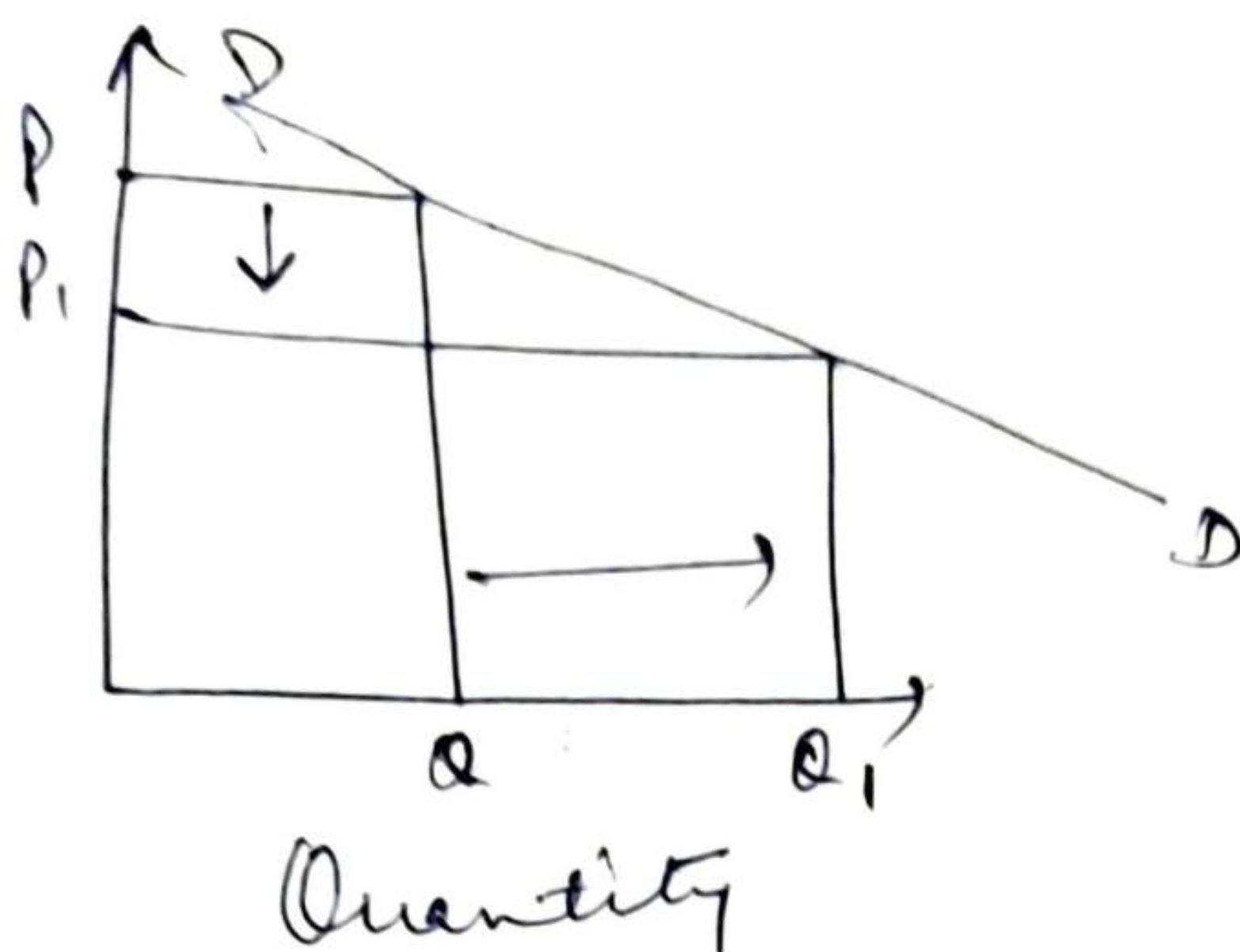
(3) Unitary Elastic Demand \rightarrow



Change in price and change in quantity demanded are equal.

$$Ed = 1$$

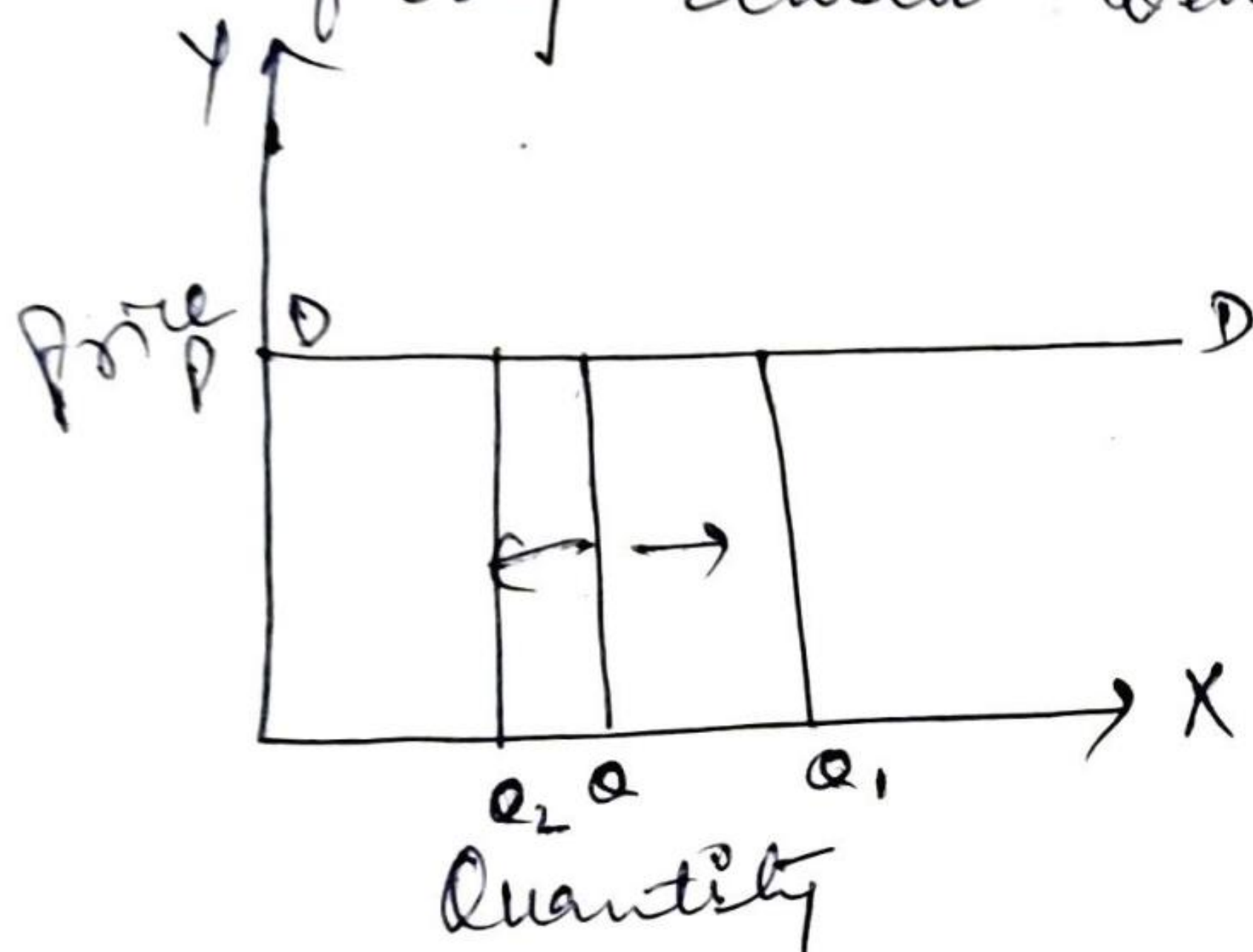
④ Highly Elastic Demand - $E_d > 1$



∴ Change in quantity demanded is greater than the % change in price.

⑤ Perfectly Elastic Demand -

$$E_d = \infty$$



when demand is infinity but price constant and if small price reduction that will raise demand from zero to infinity.

(2) The Point Method

(a)

Proof. Marshall : Geometrical method for measuring elasticity at a point on the demand curve.
Let MN be a straight line demand curve.
If the price falls from RB to SC
(OA) (OC),

the quantity demanded increases from OB to OD.

Elasticity at a point R on the MN demand curve is defined as :
Calculated

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

$$\Delta Q = BD = QS$$

$$\Delta P = AC = RB$$

$$P = OA = RB$$

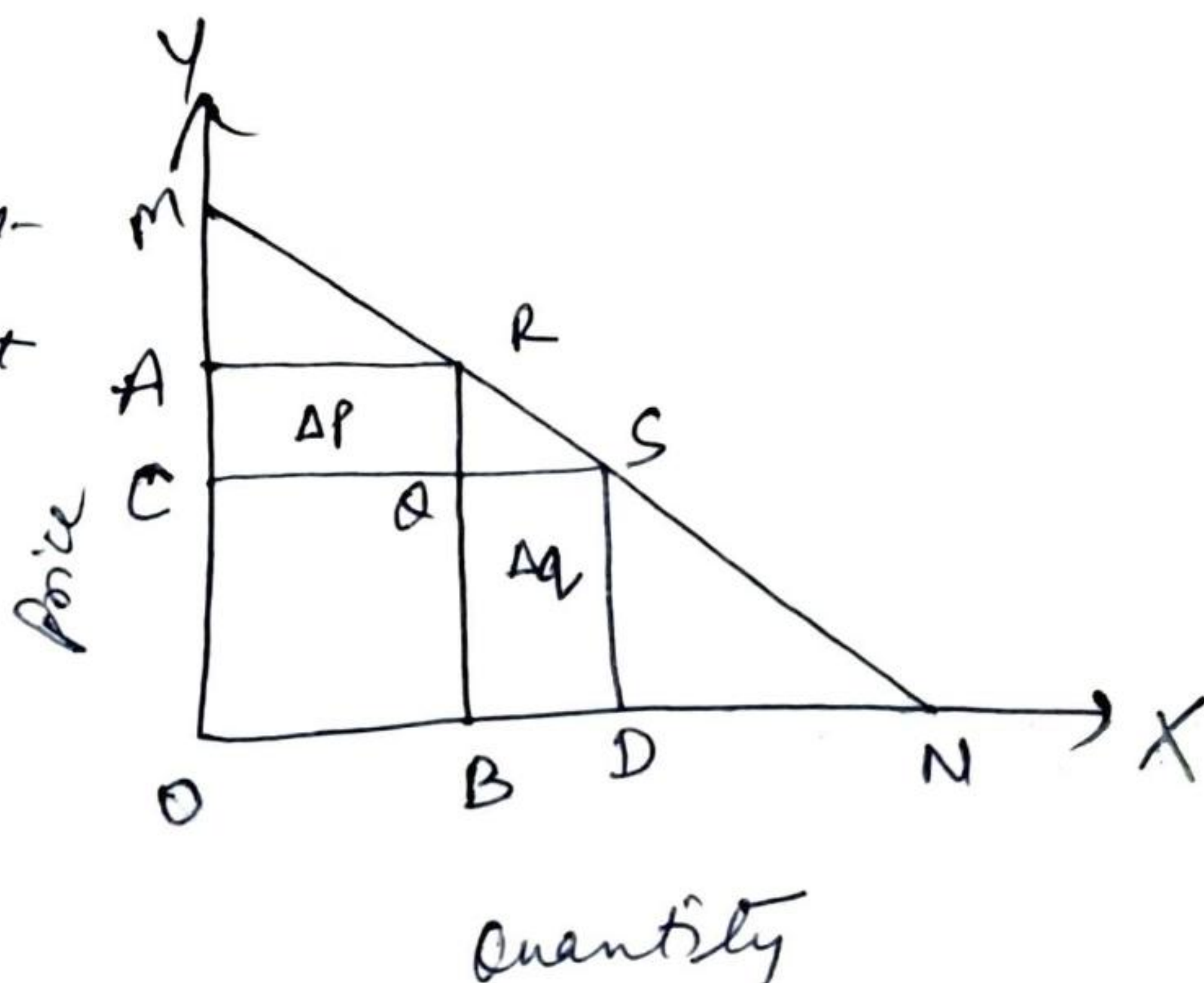
$$Q = OB$$

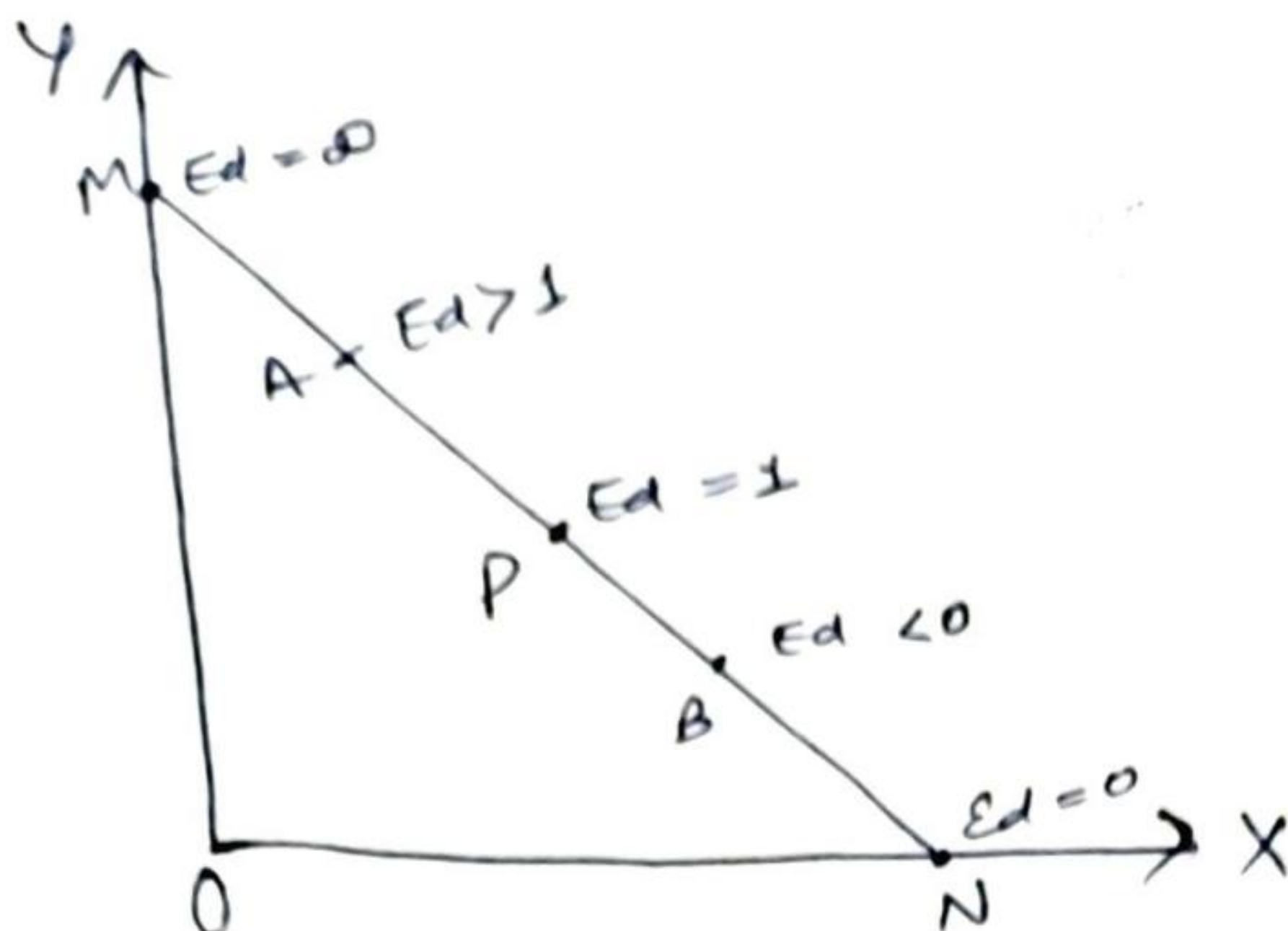
$$Ed = \frac{OA}{OB} \times \frac{BD}{RB} \Rightarrow \frac{RB}{OB} \cdot \frac{QS}{RB} \quad \left(\because \begin{matrix} OA = RB \\ BD = QS \end{matrix} \right)$$

$$\frac{QS}{RB} = \frac{BN}{RB}$$

$$Ed = \frac{\text{Lower Segment}}{\text{Upper Segment}}$$

$$= \frac{RN}{RM}$$





(i)

$$Ed = 1 \text{ (unity)}$$

P point is at middle of the demand curve,
lower segment = upper segment.

$$Ed = \frac{PN}{PM} = 1$$

(ii)

$Ed > 1$ (greater than unity) At point A,

$$Ed = \frac{AN}{AM} > 1$$

(iii)

$Ed < 1$ (less than unity) At point B,

$$Ed = \frac{BN}{BM} < 1$$

(iv)

$Ed = 0$ (zero) At point N,

$$Ed = \frac{0}{NM} = 0$$

(v)

$Ed = \infty$ (infinity) At point M,

$$Ed = \frac{NM}{0} = \infty$$

(3)

Total Outlay Method -

It is also called total revenue method / total expenditure method.

The change in total expenditure of consumer brought abt by change in price has a relation to the elasticity of demand.

(i) Elastic Demand - A fall in price increases the total expenditure of the consumer on the good and vice-versa.

Price per unit (Rs)

10

9

Quantity Demanded

100

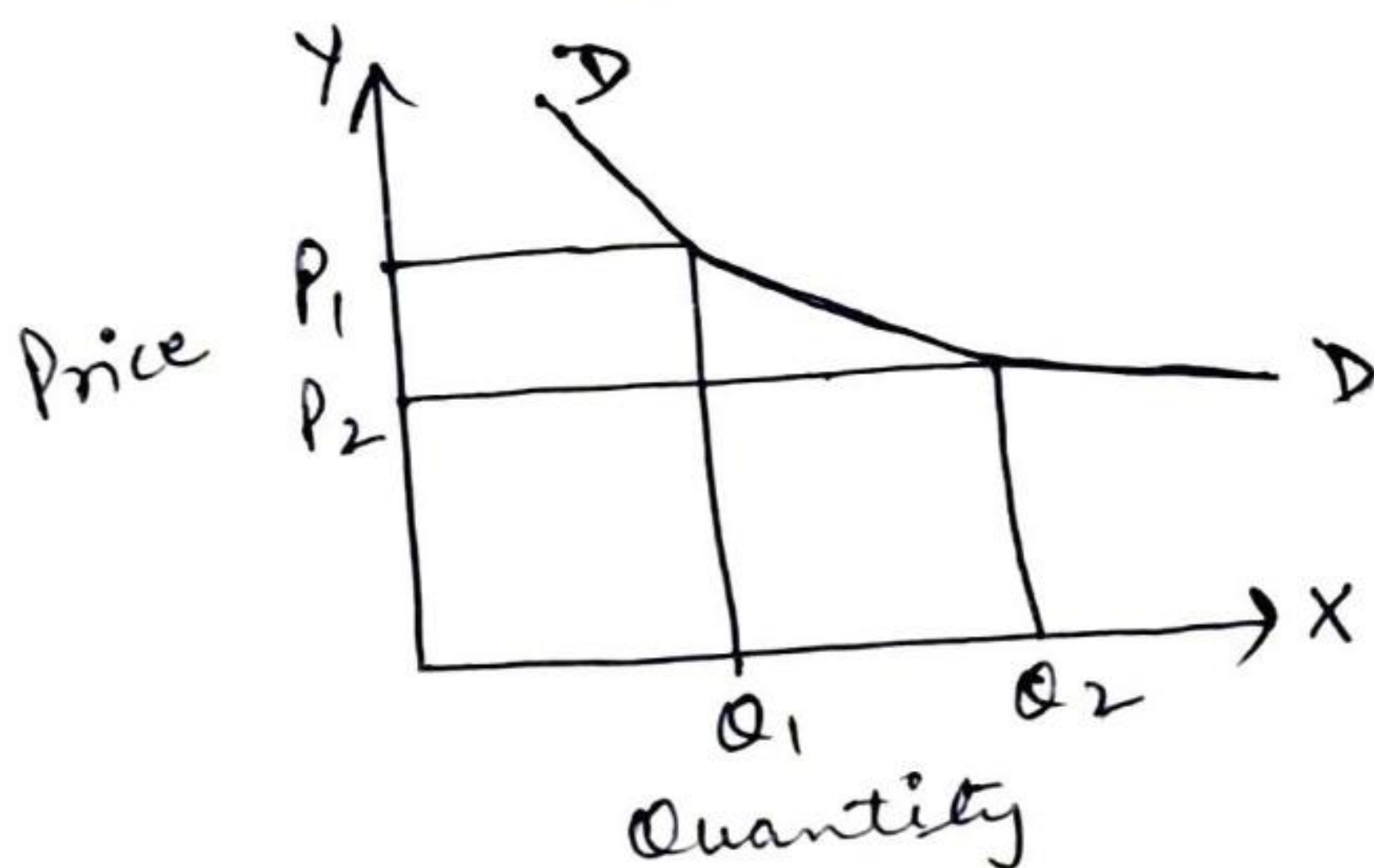
125

Total Expenditure

1000

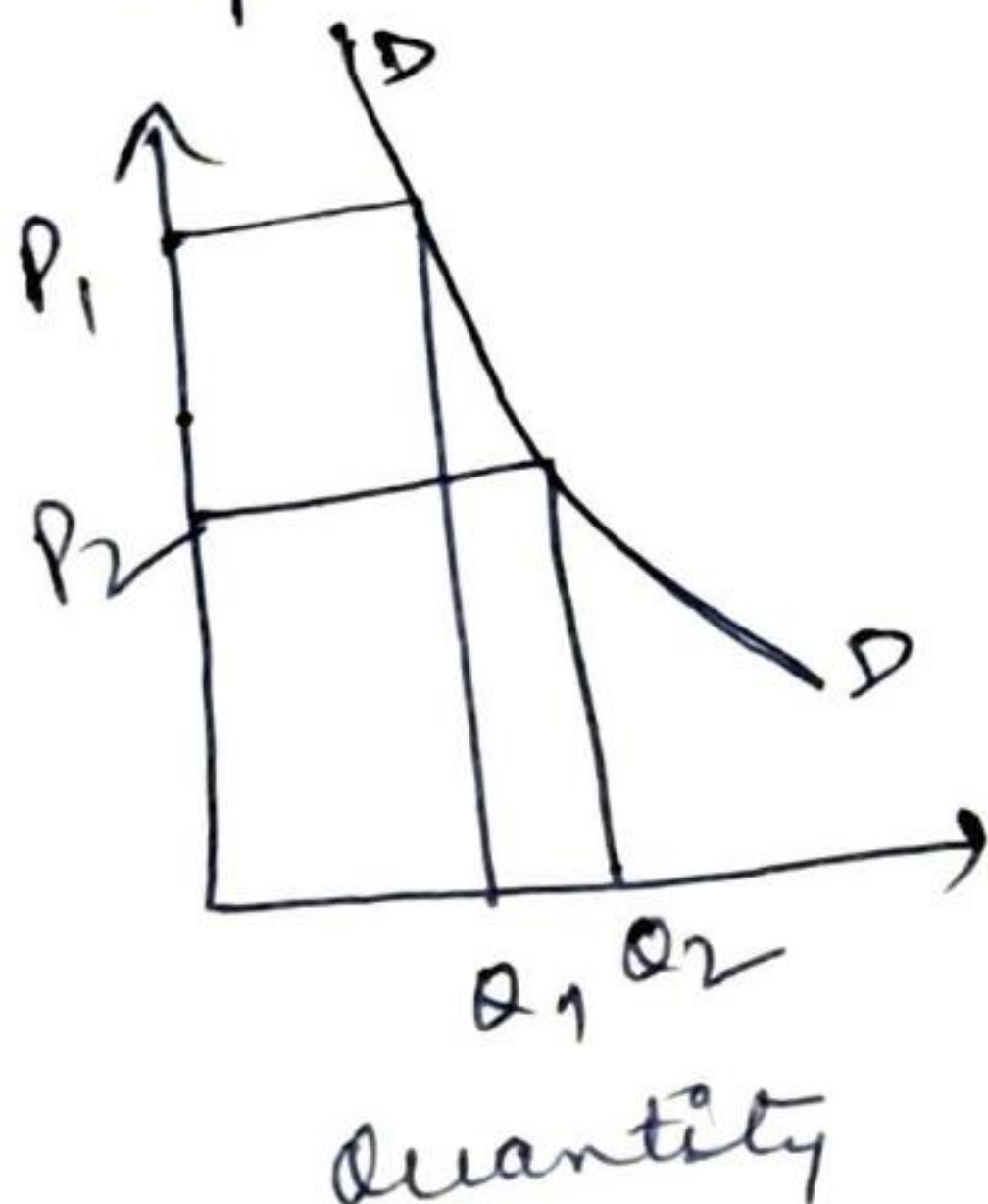
1125

$$P \times Q = TE$$



(ii) Inelastic Demand - where a fall in price reduces total expenditure and vice versa.

Price increase in TE.



Price (Rs)

10

9

Quantity Demanded

100

110

Total Expenditure

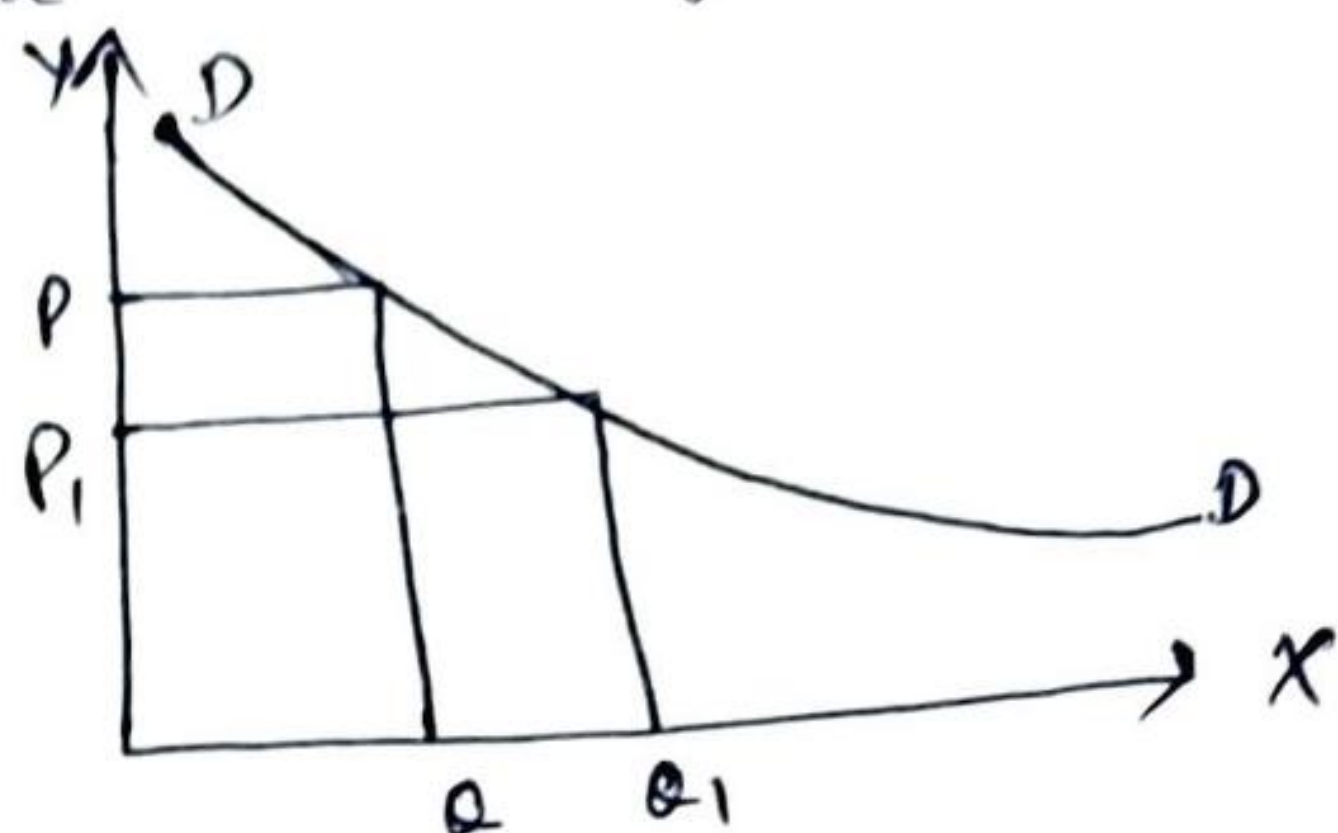
1000

990

$$P \times Q = TE$$

(iii) Unit Elasticity : In this case, a rise or a fall in price leaves total expenditure on the goods unaffected.

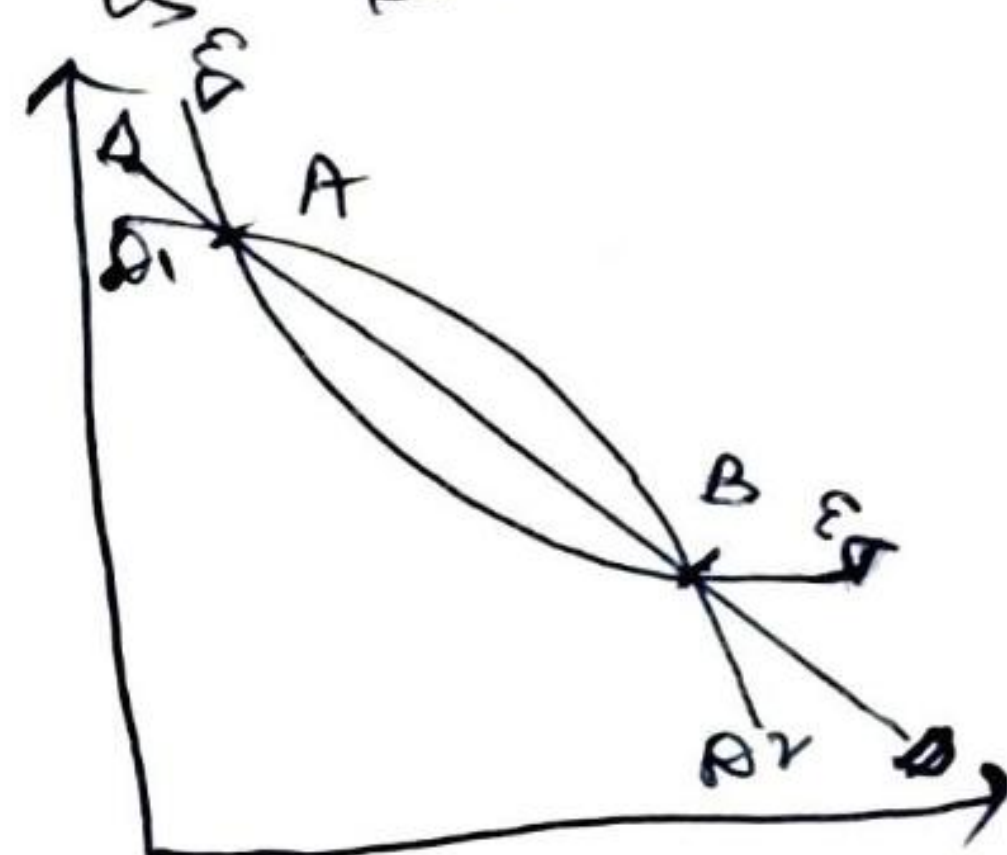
Price (Rs)	Quantity Demanded	Total Expenditure
5	100	500
4	125	500



④ The ARC Method

An Arc is a portion of a curved line, so a segment of a demand curve. Arc elasticity is the elasticity at the mid point of an arc of a demand curve. By using averages of the two prices and two quantities is known as arc elasticity.

Price (Rs)	Quantity Demanded
5 P	200 Q
4 P ₁	250 Q ₁



Income Elasticity of Demand

The relation between changes in income and changes in consumption of a good can be expressed as income elasticity of demand. It is the ratio of percentage change in quantity demanded to the percentage change in income. Thus,

$$E_y = \frac{\Delta Q / Q}{\Delta Y / Y}$$

E_y = income elasticity of demand

ΔQ = change in quantity demanded

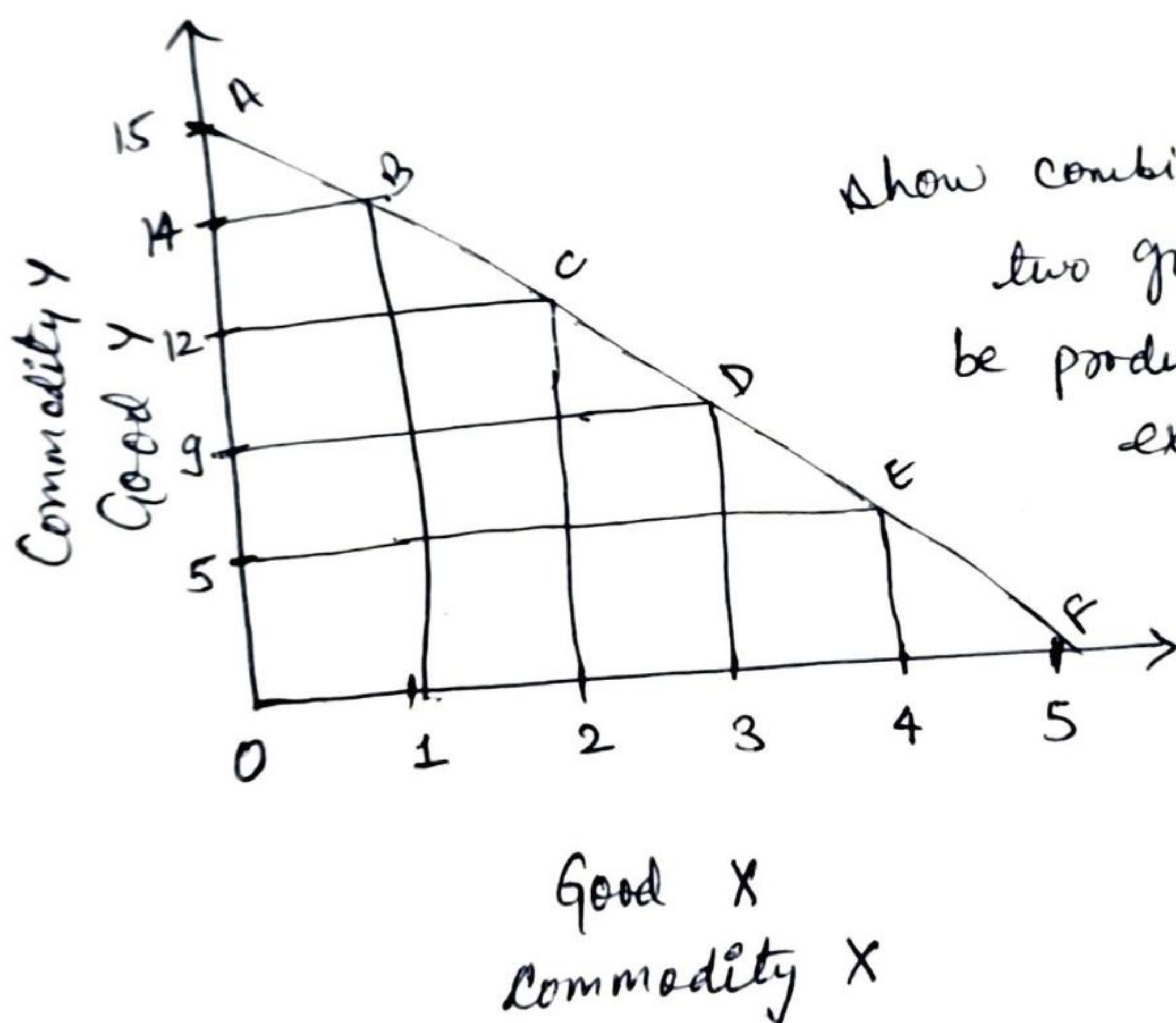
ΔY = change in income.

"Income elasticity of demand is the proportional change in quantity purchased divided by proportional change in income". (Hirshleifer and Glazer)

Types of Income Elasticity of demand -

- (i) Zero Income Elasticity of Demand - Income changes causing no change in quantity demanded result in zero elasticity. ($\eta_y = 0$)
- (ii) Unitary Income Elasticity - Equal percentage change in income and quantity demanded result in income Ed of 1 ($\eta_y = 1$)
- (iii) less than one - When one percent increase in income leads to less than one % increase in quantity demanded then income elasticity is less than one. ($\eta_y < 1$)
- (iv) Greater than one - If one % increase in income of consumer causes more than one % increase in quantity demanded, elasticity is said to be higher than one. ($\eta_y > 1$)

PP Schedule Table		
Production Possibilities	Quantity X	Quantity Y
A	0	15
B	1	14
C	2	12
D	3	9
E	4	5
F	5	0



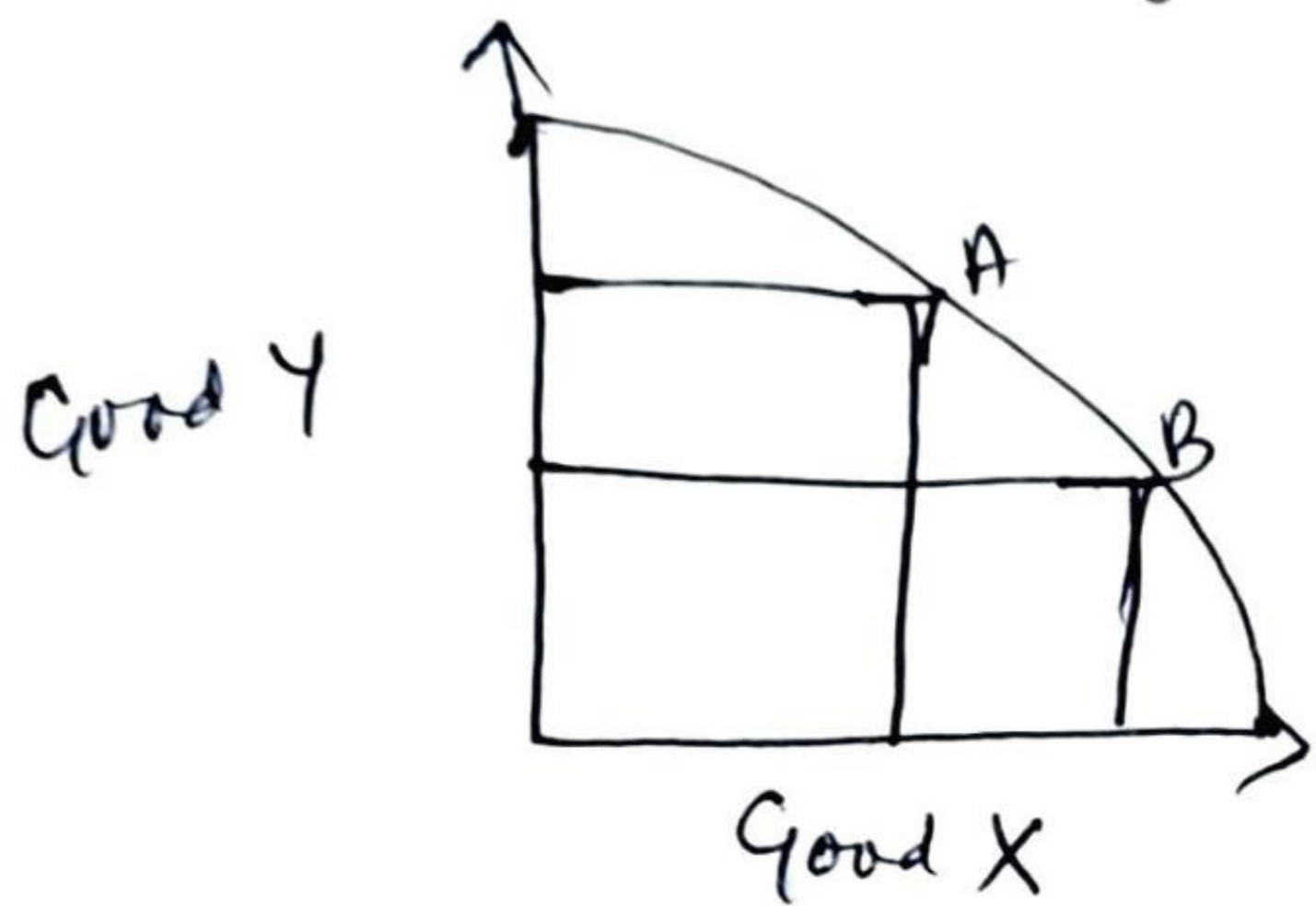
Show combinations of two goods that can be produced by the existing resources and technology of the society.

→ PPC slopes downward.

→ PPC is Concave to the point of origin - due to following law of increasing opportunity cost.

Central Problems and Production Possibility Curve -

① The problem of what to produce -



combination of
good X & Y
that can be

produced. As we
move downwards
production of consumer

on the curve the
good X \uparrow & Y \downarrow .

If we move upward on the curve, then
production of good Y \uparrow & good X decreases.

Opportunity Cost

It refers to the value of a factor in its next best alternative use.

Ex. With given resources and technology, we can either produce 5 units of good X and 15 units of good Y. Cost of availing an opportunity (Good X) in terms of the loss of the other opportunity (Good Y).

It refers to total loss of output when given resources are shifted from use of I (Opportunity I) to use II (Opportunity - II)

Marginal Opportunity Cost (MOC)

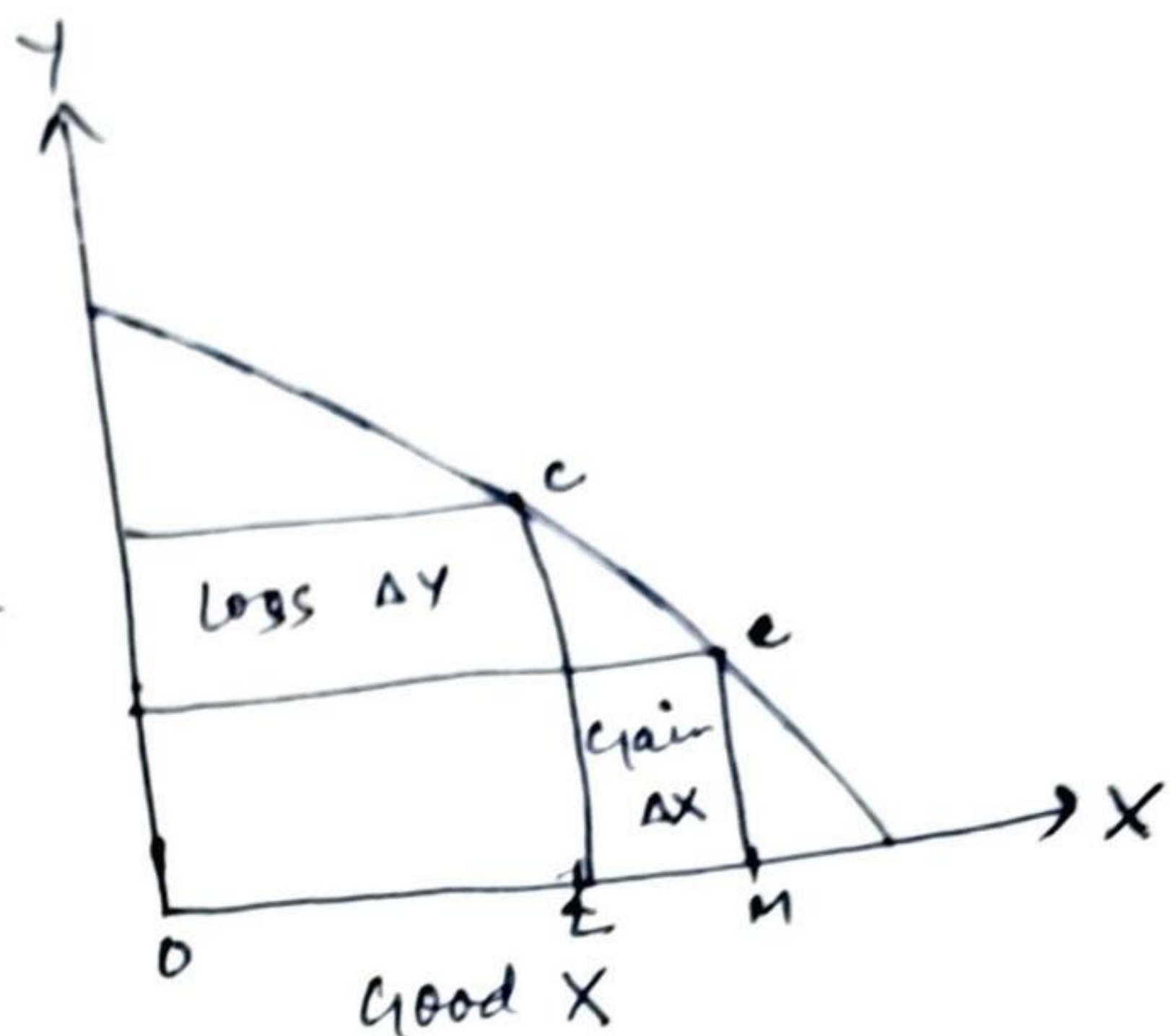
It also termed as the marginal rate of technical substitution. (MRT)

It is the rate at which the quantity of output of one commodity is sacrificed to produce one more unit of the other commodity.

It is the ratio of units of one good Y sacrificed to produce one additional unit of the other good X.

$$MOC / MRT = \frac{\text{Units of one good sacrificed}}{\text{One additional unit of other good produced.}}$$

Total opportunity cost
 When the given resources are
 shifted from good Y to
 good X i.e. from opportunity
 -1 to opportunity -2
 = Total loss of output of
 Good Y



Marginal opportunity cost

When some resources are shifted from Good Y to
 Good X i.e. from opportunity 1 to opportunity 2.

$$= \frac{\text{loss of output Y}}{\text{gain of output X}} = \frac{\Delta Y}{\Delta X}$$

MOC

- MOC is the ratio b/w loss of output and gain of output when some resources are shifted from use 1 to use 2.
- MOC indicates the cost of one more unit of output (an additional unit of output) when some resources shifted from use 1 to use 2.

TOC

- TOC is not the ratio. It refers to total loss of output when some resources are shifted from use 1 to use 2.
- TOC indicates the cost of all units produced when some resources are shifted from use 1 to use 2.