Economics

Efficiency

Maximum level of output আর Limited Resource থেকে পাওয়া সম্ভব

Economics 2 প্রকার

| Microeconomics | Macroeconomics |

Ques: Difference 0 our explain ?

Input and output

Production function

$$Y = f(L, K)$$

$Y \downarrow$ output $f \downarrow$ Input $L =$ Labor $K =$ Capital

* Explain Production function.

Oppourtunity cost

*Explain Oppourtunity cost ?
(কোনো একটি product পাওা পাওয়ার জন্য অন্য available
Product no পাওা la)
আগের PPE (Production Possibility Frontier)

P	B
5	0
4	1
3	2
2	3
1	4
0	5
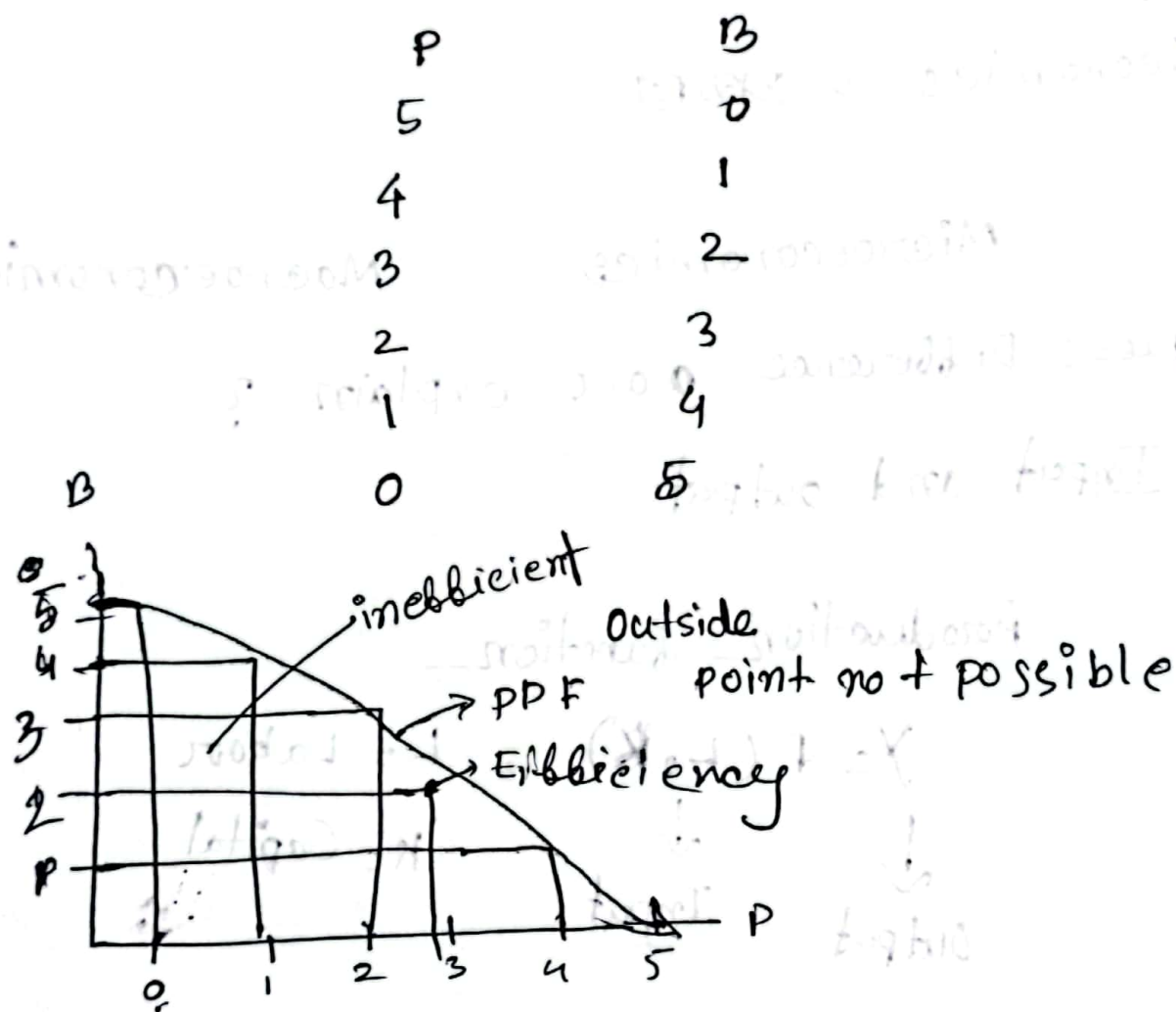
* Explain PPF ? @ Explain pp show different

point of PPF

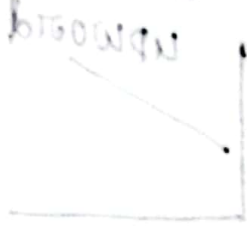* Ceteris Paribus - if other things remain constant

Demand theory

Quantity demand   Price demand
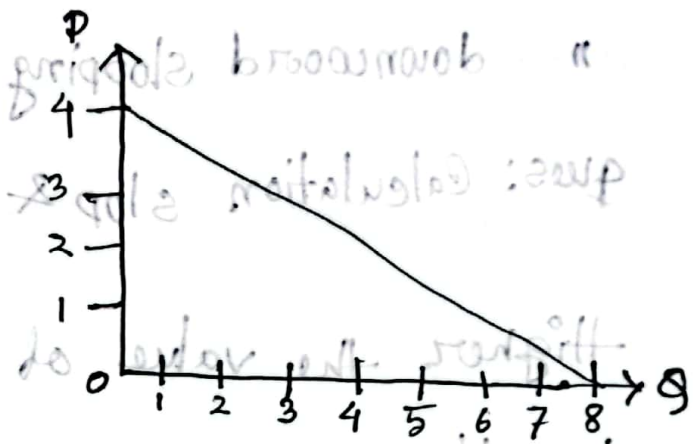
$P\uparrow Q\downarrow$ ⊖

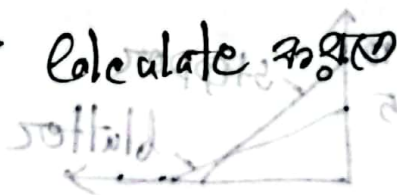$P\downarrow Q\uparrow$

* Demand function

$$Q_1 = 10 - 2P$$

P	Q
1	8
2	6
3	4
4	2

(Down word slopping curve)

Ques: Explain demand theory?

* Function দেওয়া থাকলে Calculate করে Graph draw করে চাল রে করতে হবে।

$Q_1 = 10 - 2p \longrightarrow y = mx + c$

Independent variable

$m = -2$

P and Q_1 relationship negative.

interperpretation $\rightarrow \oplus$ upward $\ominus$ downward
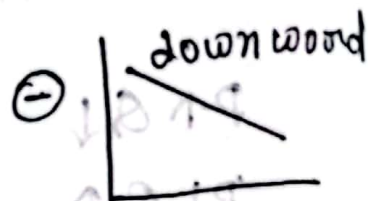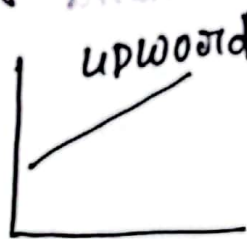
P and Q_T এর মধ্যে relation negative এবং demand function

" downward slopping curve negative হলে,

ques: Calculation slop & interpretation?

Higher the value of the slop stipper will be the curve. (খাড়া)

⊗ Slop এর মান যত বেশি curve খাড়া হবে,

" " " যত কম " flatter হবে.

* True/ False with logic

Why the demand curve is down toward 0 slop?

Reason : Substitation Effect যেমন কোনো Product ধন বেড়ে যাতে তখন ৫ Cosumer ৩ প্র Product Substitution Product ব্যবহার কম করছে। ↓ P↑ Q↓

(II) ৪ Income ebbect : Price বাড়ে ৪inatity demand কমে যাতে;

P↑ Real income P↑ Q↓

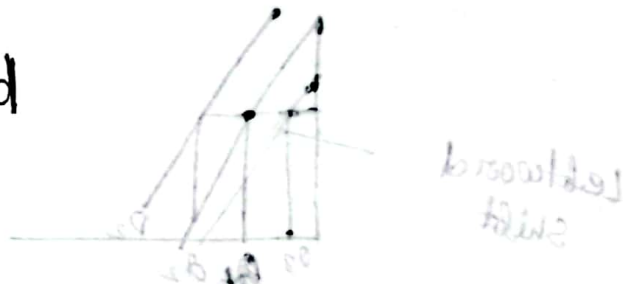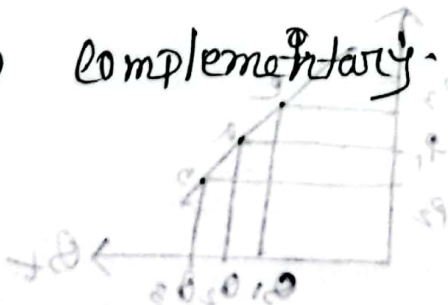৪ Price বাড়লে Real income কমে যাতে so negative আসবে বলে demand curve down coord slop এব,

(I) Substitution Good

(II) Complementary ,,

ques : Explain Substitud Good with example?

,, Complementary ,,

(1) Income : যদি Income বেড়ে যায়' Quality demand
বাড়বে
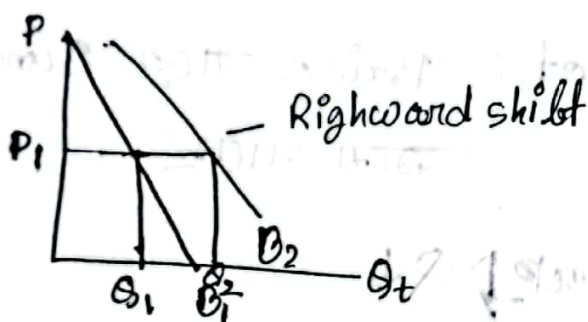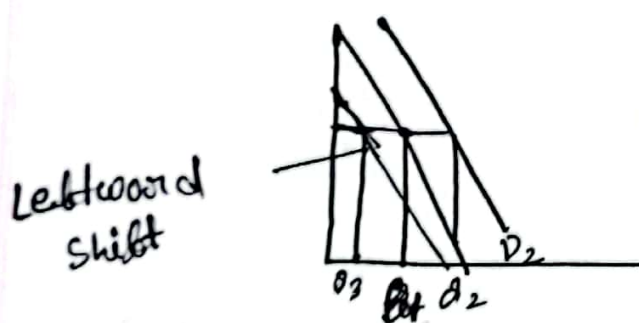$$I \uparrow \quad Q_t \uparrow$$
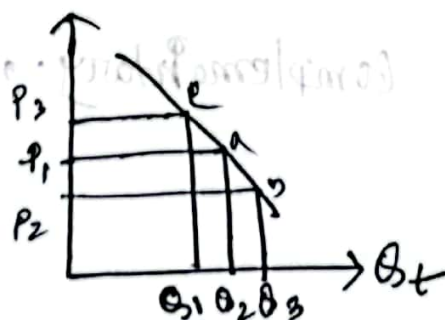
" কমে " " ''

কমবে,
$$I \downarrow \quad Q_t \downarrow$$

— Rightward shift

(*) How an increase th income in will b Demeand?

I বাড়লে income ● বাড়ালে

Leftward
Shift

Price : $P \uparrow \, Q_T \downarrow$
$P \downarrow \, Q_T \uparrow$

✓ Movement along the demand curve (Product
Price

Population: $P_D \uparrow Q_T \uparrow$ (Right)

$P_D \downarrow Q_T \downarrow$ (left)

(Shift of the demand curve হবে)

Related Goods

CT → Chapter 1 - 5 টা topic.

" 3 -

_____ (if other things remain constant)

* Supply → (Price and quantity এর+ relation)

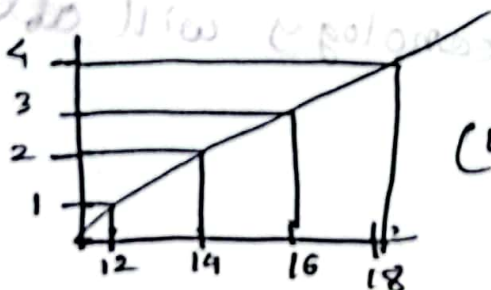" related to seller

কোনো Product এর দাম বাড়লে Q_s বাড়লে

↗ " ও " " ⑩ ৩০ কমলে Q_s কমবে.

$$P \uparrow Q_s \uparrow$$
$$P \downarrow Q_s \downarrow$$

Supply function

$$Q = 10 + 2P$$

(upward slopping curve)

P	Q_s
1	12
2	14
3	16
4	18
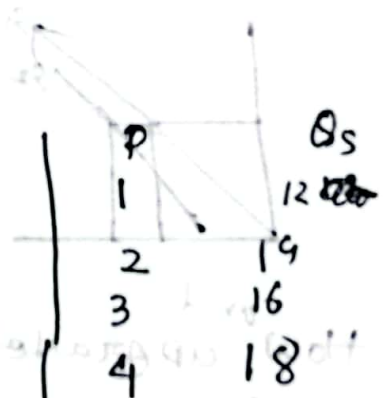
* Explain ~~Spply~~ Supply theory ?

calealate slope ? ⊙ ~~explain~~ ② interporation?
give

1. slope positive এ ইহার value বিংশ বাড়ে।
বলে অন্যও সাথে relation positinon

2. Supply and price এ? সাথে · positive হয়

this is a supply function

3. Positive এ ইলে Upword slopping ewreসে,

বলে।

Supply Factor

* Teenology ; develop হলে Qs বাড়বে
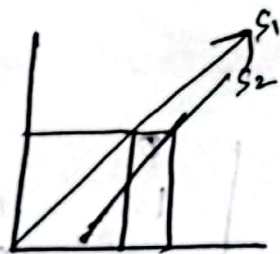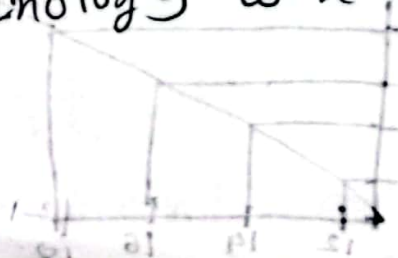
$$T \uparrow Q_s$$

$$T \uparrow \quad Q_s \uparrow$$
$$T \downarrow \quad Q_s \downarrow$$

* How upgradetion of teenology will abbect
quantity spply?

Price:

Goverment policy:

(I) কমালে Left ward → tax বাড়বে

(III) Tax কমালে Φ right ward sid shift হবে।
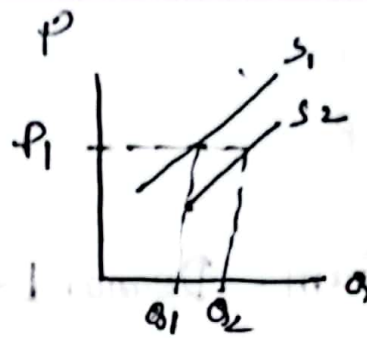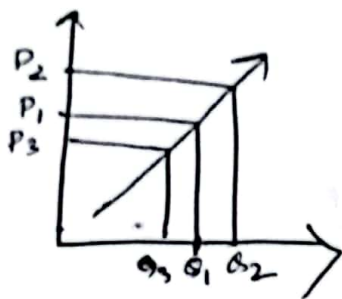
(IV) Price of relative good:

"   " Input → Input price বাড়লে Qs কমবে।

✗ Input price কমলে Qs বাড়বে।

$Q = 100 - 2P$,

$Q = 50 + 2P$

Equliborium — Demand = Supply
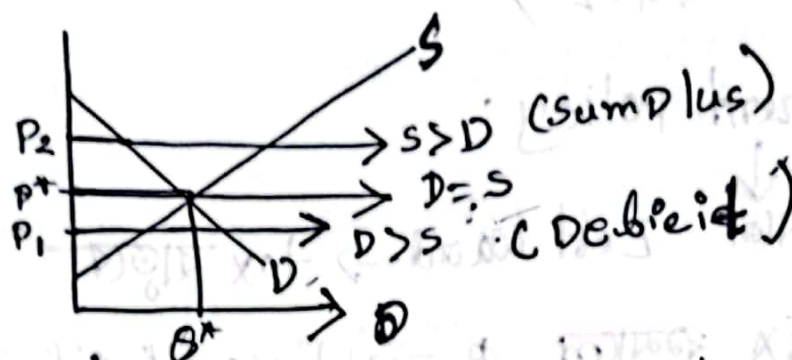
* Explain equliborium ? and Graph

● Equiliborium condition : $D = S$

$$100 - 2P = 50 + 2P$$

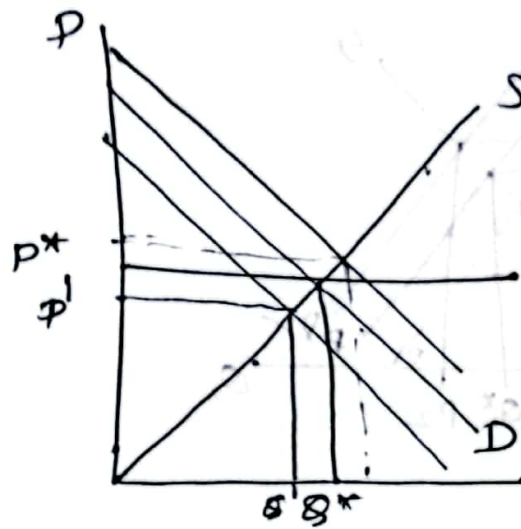$$\Rightarrow -2P - 2P = 50 - 100$$

$$= -4P = -50$$

$$\Rightarrow P^* = \frac{-50}{-4}$$

$$= 12.5$$

$$Q^* = 100 - 2(12.5)$$

$$= 75$$

* Calculating equaliborium price and quantity

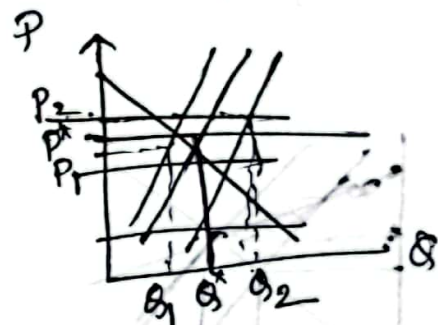x Explain the effect of change in Income on equilibrium Price and quantity.

Income बढ़ेगी तो Equilibrium point आगे

Income कमेगी Equilibriee कम आगा

* Explain the effect of change in Input Price on equilibrium price and quantity.

Input price ↑ S ↓
Input " ↓ S ↑

Elasticity:

% Δ in one variable due to % Δ in another variable

change → Δ

Price Elasticity (এ ধরনের change হবে)

(% এ Δ Q due to % ΔP)

$$E_P = \frac{\% \, \Delta Q}{\% \, \Delta P} = \frac{\Delta Q/Q}{\Delta P/P}$$

$$\Delta Q = Q_2 - Q_1 \qquad Q = \frac{Q_1 + Q_2}{2}$$

$$\Delta P = P_2 - P_1$$

$$P = \frac{P_1 + P_2}{2}$$

* At price 10 taka   Quantity was 15 unit

Now at price 15 quantity is 10 unit

$$Q_1 = 15 \qquad P_1 = 10$$
$$Q_2 = 10 \qquad P_2 = 15$$

$$\Delta Q = Q_2 - Q_1 = 10 - 15 = -5$$

$$\Delta P = P_2 - P_1 = 15 - 10 = 5$$

$$Q = \frac{Q_1 + Q_2}{2}$$

$$= \frac{15 + 10}{2}$$

$$= \frac{25}{2}$$

$$\boxed{\uparrow\; \text{टम} \uparrow \\ \text{supply}}$$

$$Ep = \frac{-5}{5}$$

ignore sign $= -1$ (demand)

Interpretation:

if $Ep > 1$ — Elestic demand/supply

$Ep < 1$ — Inelestic

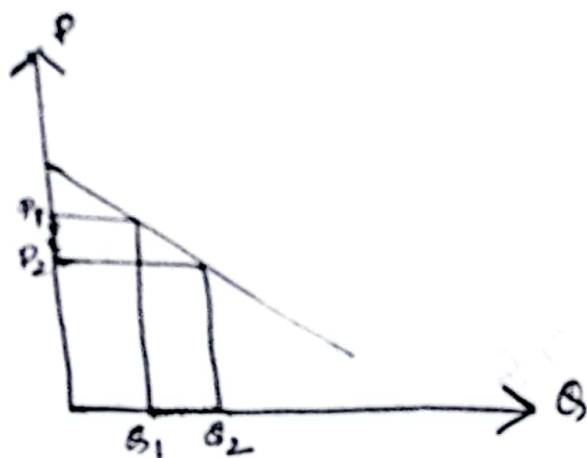$Ep = 1 \rightarrow$ Unit Elestice

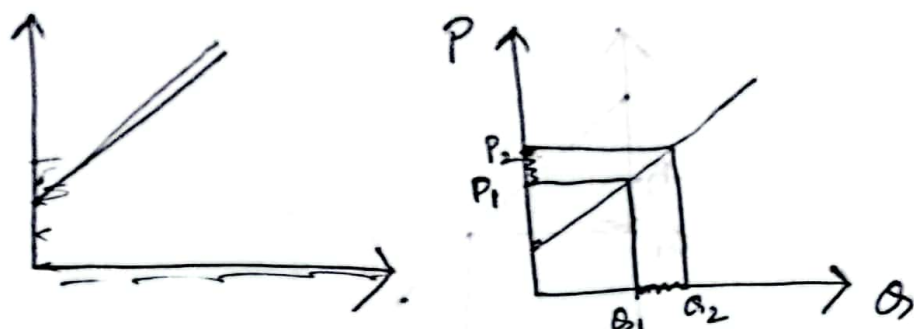| P	Q
10	5
12	10
15	15
20	20

Elestic : $\% \Delta Q > \% \Delta P$

Elastic Demand curve

Elastic Supply curve

Inelastic : $\% \Delta Q < \% \Delta P$, $Ep < 1$
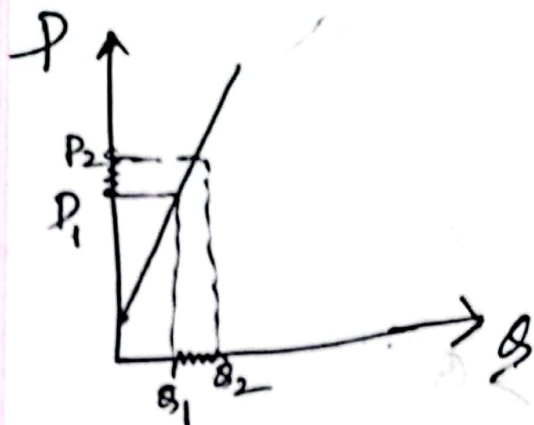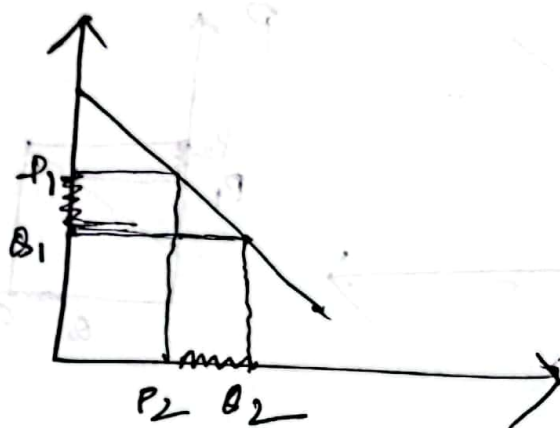
Demand:
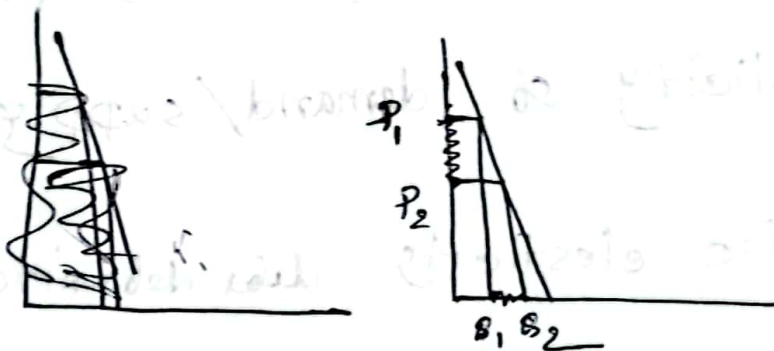
Supply:

Unit elestic: $E_p = 1$ $\% \Delta Q = \% \Delta P$

* Explain different kinds of price elesticity of demand/supply?

Ans – Price elesticity difi definitoin then formula

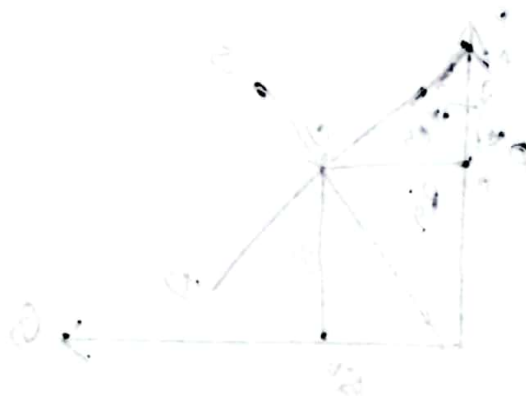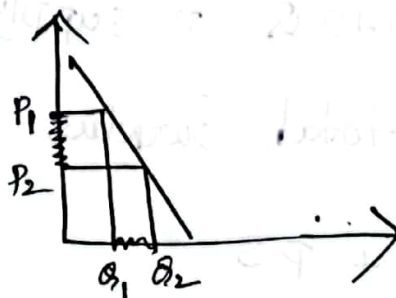classibication, then assum definition and curve.

Page — 70, 1, 2no table

when demand is price inclastic, a price decrease reduces total revenue (রাজস্ব), increase

$$TR = price \times quantity$$
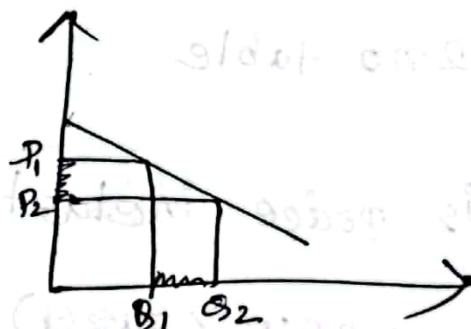
$$= P \cdot Q$$

$P \uparrow Q \downarrow$

$(P Q) \downarrow$

When demand is price elastic, a price decrease total revenue.

$\%\Delta Q > \%\Delta P$
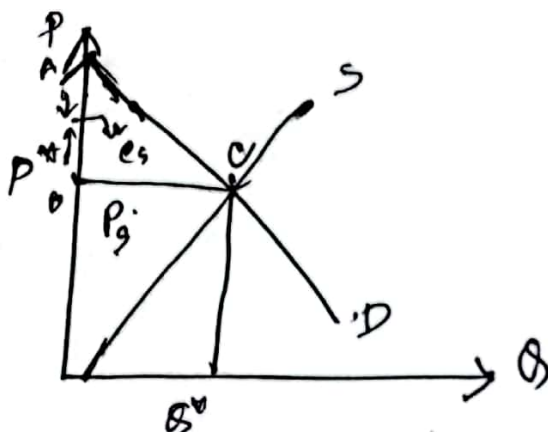
(PD) ↑

inverse

$P = 100 - 2Q$ demand function

$B = 50 + 2Q$ " supply "

Calculate total Surplus:

$TS = CS + PS$

$CS = $ consumer surplus (Area under the demand curve)
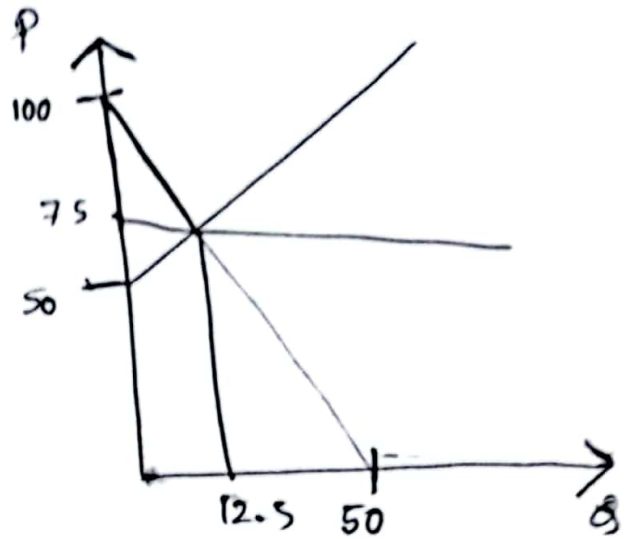
$PS = $ producer "

$$D = S$$

$$100 - 2Q = 50 + 2Q$$
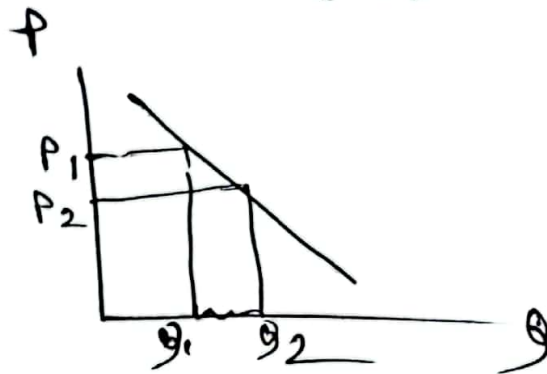
$$Q = 12.5$$

$$P = 100 - 2 \times (12.5)$$

$$= 75$$

Demand, $P = 0$ $P = 100$
$\quad\quad\quad\quad Q = 0,$ $Q = 50$

Supply, $Q = 0$ @ , $P = 50$

$CS = \frac{1}{2} \times 12.5 \times (100 - 75)$
$\quad\quad =$

$PS = \frac{1}{2} \times (75 - 50) \times 12.5$
$\quad\quad =$

$$\frac{no}{P\uparrow \; Q\downarrow}$$

$* \; \%\Delta Q > \% \Delta P$

$P \uparrow \quad Q \downarrow$

$\$(PQ) \uparrow$

$\%\Delta Q > \%\Delta P$