

⇒ Supply and Demand Together

Equilibrium &

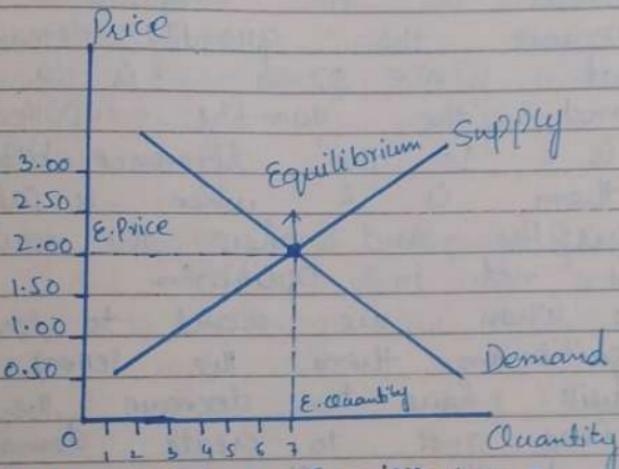
Equilibrium refers to a situation in which the price has reached the level where the quantity supplied equals the quantity demanded.

"This is a point on a graph and where supply and demand curves intersect so called as market's equilibrium"

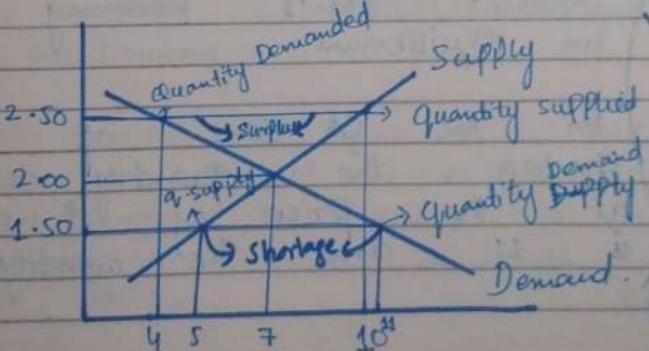
→ The price at this intersection is called the equilibrium price, and the quantity is called equilibrium quantity

→ As discussed in Demand and the supply schedule the market price of the ice-cream cone is \$ 2.00 and the market supply and the market demand is 7, so at price \$ 2.00

The quantity demanded and supplied are equal means the market is in equilibrium. So graphically we can explain as.



Markets not in Equilibrium



- The market when it is not in equilibrium occurs when there is the difference between market demand and the market supply.
- (ii) In the previous graph the market is not in equilibrium because the quantity demand at price \$2.50 is 4 and the quantity supplied is 10, the difference between them is 6, which is called surplus, and here the market is not in equilibrium.
So when we want to market equilibrium then the sellers will have to decrease the price just to create demand and when it happens the market starts becoming in equilibrium.

- (iii) In the case of the shortage, the quantity demand at the price of \$1.50 is 11 and the quantity

Supply is 11, the difference between them is called shortage which is market unequilibrium, so again if we want to create market in equilibrium so the seller will increase the price of a good so that the demand decreases and which will result in market equilibrium.

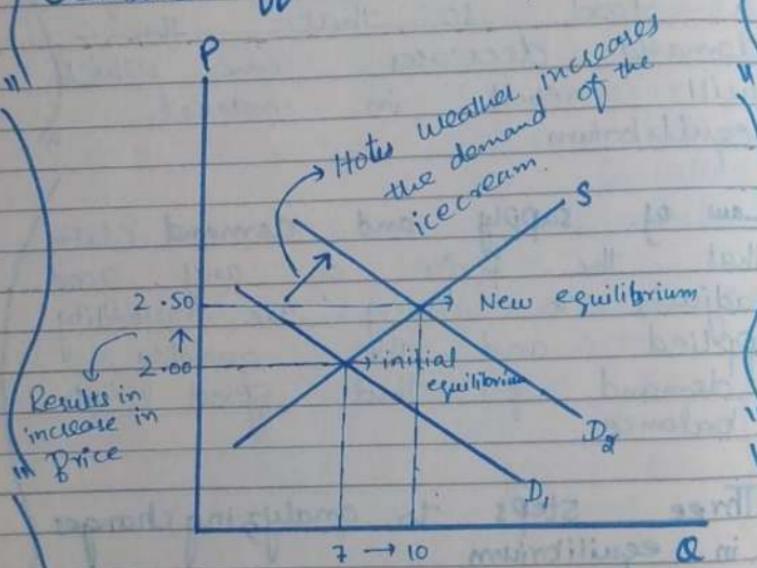
Law of supply and demand claims that the price of any good adjusts to bring the quantity supplied and the quantity demanded for that good into balance.

→ Three steps to analyzing changes in equilibrium.

- (i) Decide whether the event shifts the supply or demand curve.
- (ii) Decide whether the curve shifts to the right or to the left.

(iii) Use the supply and demand diagram to see how the shift affects equilibrium price and quantity.

→ How an increase in demand affects the equilibrium



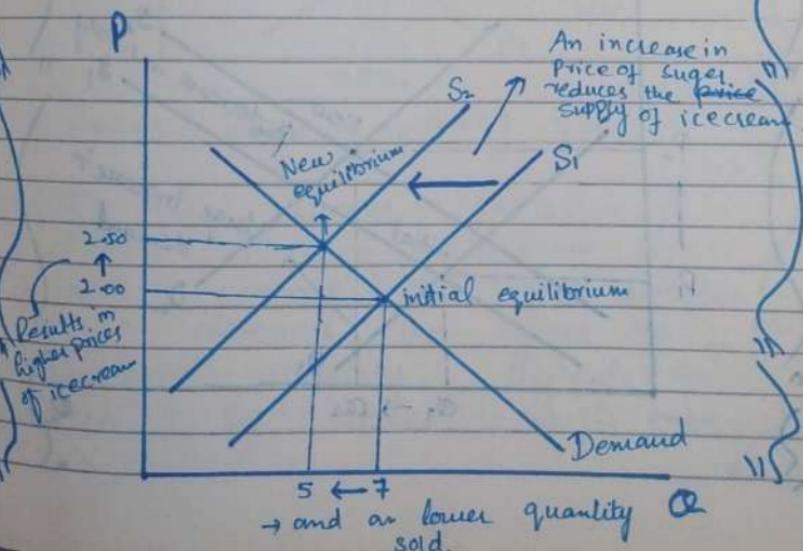
→ Shifts in curves Versus movement along the curves

(iv) A shift in the supply curve

- (i) is called a change in supply.
- (ii) A movement along the fixed supply curve is called a change in the quantity supplied.
- (iii) A shift in the demand curve is called a change in demand.
- (iv) A movement along a fixed demand curve is called a change in quantity demanded.

→ A Change in Market equilibrium Due to shift in supply.

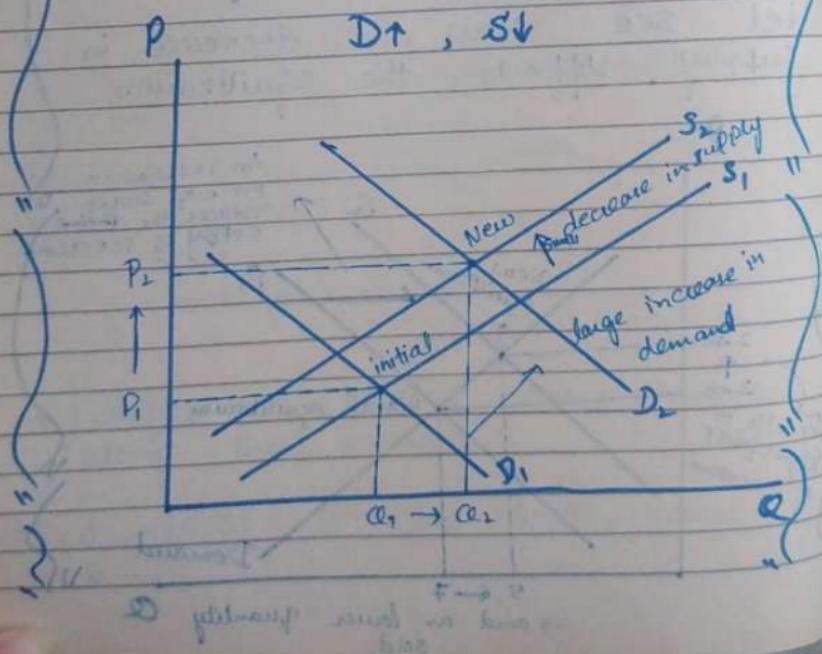
Let see How a decrease in supply Affects the equilibrium.



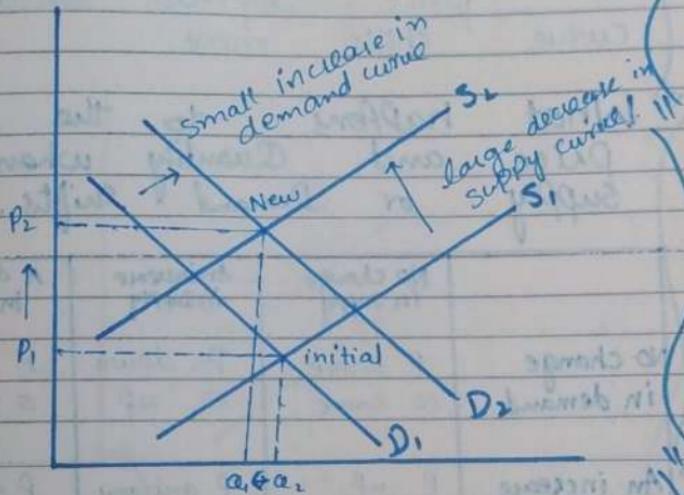
→ Shifts in Both Supply and Demand.

He we observe a simultaneous increase in demand and decrease in supply. Two outcomes are possible. In Panel.

- (a) The equilibrium price rises from P_1 to P_2 and the equilibrium quantity rises from Q_1 to Q_2



(b) In Panel (b) the equilibrium price again rises from P_1 to P_2 but the equilibrium quantity falls from Q_1 to Q_2 .



Prices Rises quantity falls.

(ii) If the curves shifts in opposite direction, equilibrium price will move in same direction as demand, the effect on equilibrium quantity depends on which the curves shifts more.

(ii) When the supply and demand curve shifts in the same direction, equilibrium quantity also shifts in that direction, the effect on price depends on which curve shifts more.

"What happens to the price and quantity when Supply or Demand shifts."

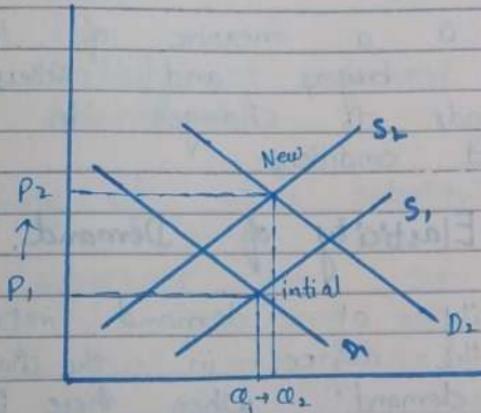
	No change in supply	An increase in supply	A decrease in supply
No change in demand	P same Q same	P down Q up	P up Q down
An increase in Demand	P up Q up	P ambiguous Q up	P up Q ambiguous
Decrease in demand	P down Q down	P down Q ambiguous	P ambiguous Q down

"When we use the above following conditions we come to known the behavior of"

Chapter # 4.

Price and quantity of the condition. for example

An increase in demand \$ decrease in Supply.



We come to know that
is $P \uparrow$ and $Q \uparrow$ but in this case but Q is ambiguous (Not clear).

Chapter No 5

Elasticity and its Application

- Elasticity & Elasticity allows us to analyze supply and demand with greater precision.
- It is a measure of how much buyers and sellers responds to changes in market conditions.
- The Elasticity of Demand.
 - Elasticity of demand refers to the degree in the change in demand when there is a change in another economic factor, such as: price or income etc.
- Price elasticity of demand
 - Price elasticity of demand is the percentage change in quantity demanded given due to given percentage.

) change in the price.

→ Q& A

Price elasticity is a measure of how much the quantity demanded of a good responds to the change in the price of that good.

→ Price Elasticity of demand and its determinants.

i) Availability of close substitutes.

When a good have many close substitutes then the elasticity of that good will be more elastic and vice versa then will be less elastic.

e.g. the substitute of coke is pepsi so the demand of coke will be more elastic.

ii) Necessities versus Luxuries.

Necessities are considered as inelastic e.g. Tablets.

The luxuries are considered as elastic e.g. a car.

(iii) Definition of market

- Definition of the market means the access of good and services in the market. So if there is easy access to a particular good then its elasticity is elastic.
- If there is no easy access to a particular good in a market, then it is considered as inelastic.

(iv) Time Horizon &

Time Horizon can also alter the elasticity of demand as if there is a less time of a commodity to be sold so it is considered as less elastic and vice versa.

→ Computing the Price elasticity of Demand.

The Price elasticity of demand is computed as the percentage change in the quantity demanded by

the Percentage change in price.

Price elasticity of demand = $\frac{\% \text{age change in quantity } D}{\% \text{ change in price}}$

Eg8 $P_1 = \$2.00$ $P_2 = \$2.20$
 $D_1 = 10 \text{ cones}$ $D_2 = 8 \text{ cones}$

So

$$EP = \frac{D_2 - D_1}{D_1} \times 100$$

$$\frac{P_2 - P_1}{P_1} \times 100$$

$$EP = \frac{\frac{10 - 8}{10} \times 100}{\frac{2.20 - 2.00}{2.00} \times 100} = \frac{20\%}{10\%} = 2$$

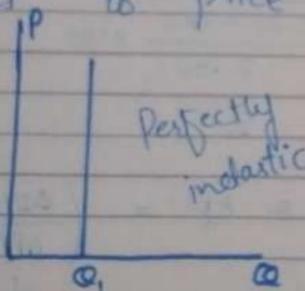
$$EP = 2$$

Mathematically & $EP = \left(\frac{\Delta D/D_1}{\Delta P/P_1} \right) \frac{100}{100}$

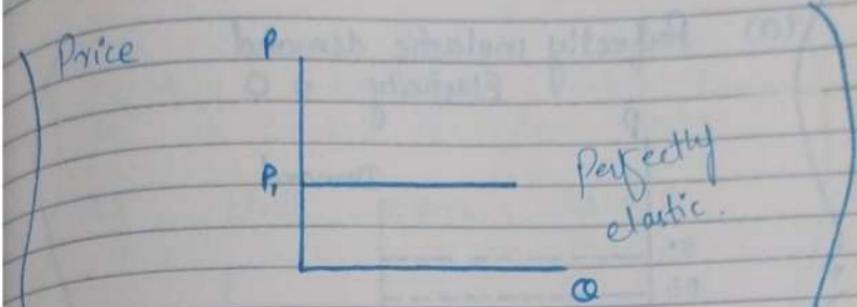
Percentage change
in demand curve

- The variety of demand curves
i) Inelastic demands
Quantity demanded does not respond

- Strongly to the Price elasticity of demand is
 Price elasticity less than one.
 $Ed < 1 \Rightarrow$ Inelastic
- Elastic demand &
 Quantity demanded responds strongly to changes in price.
 $Ed > 1 \Rightarrow$ Elastic
- Perfectly inelastic &
 Quantity demanded does not respond to price changes.



- Perfectly elastic &
 Quantity demanded changes with an change in



→ Unit Elastic

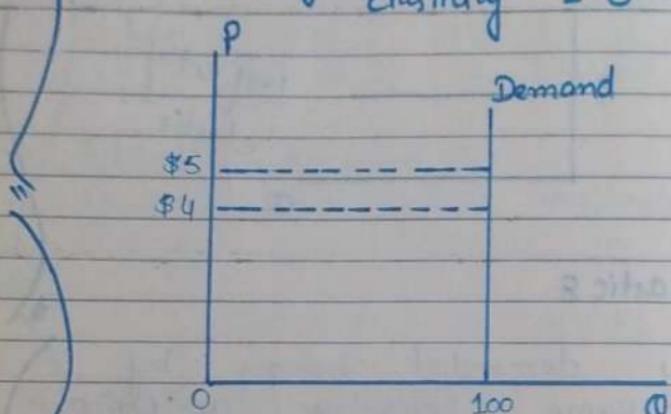
Quantity demanded changes by the same percentage as price.

$$Ed = 1 \quad \text{unit elastic}$$

- * The price elasticity of demand determines whether the demand curve is steep or flat. Note that all percentage changes are calculated by using the midpoint method.

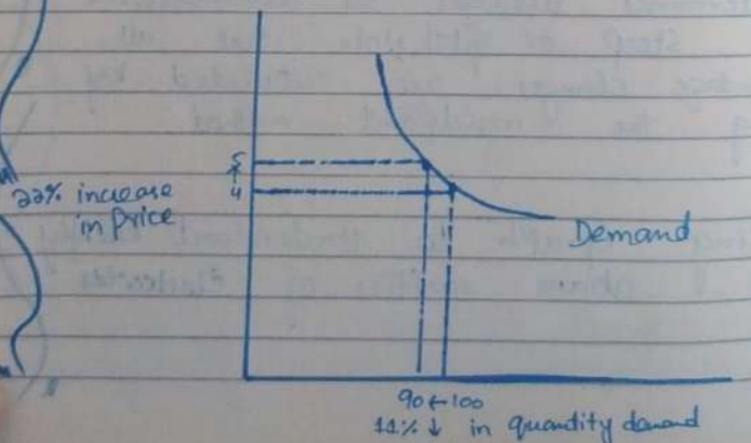
Using Graph to understand briefly the above varieties of Elasticities

(a) Perfectly inelastic demand
Elasticity = 0



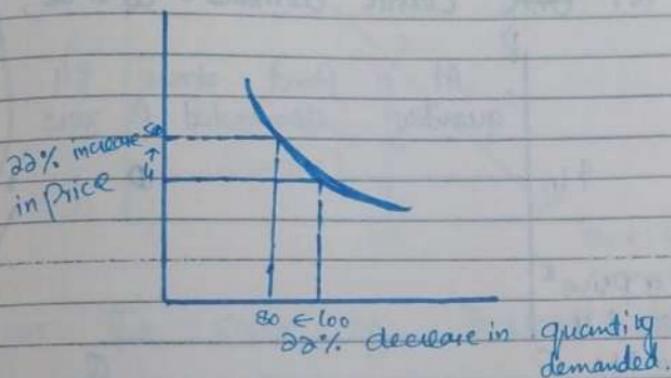
⇒ Increase in Price brings no change in demand.
So $Ed = 0$

(b) Inelastic Demand : $Ed < 1$



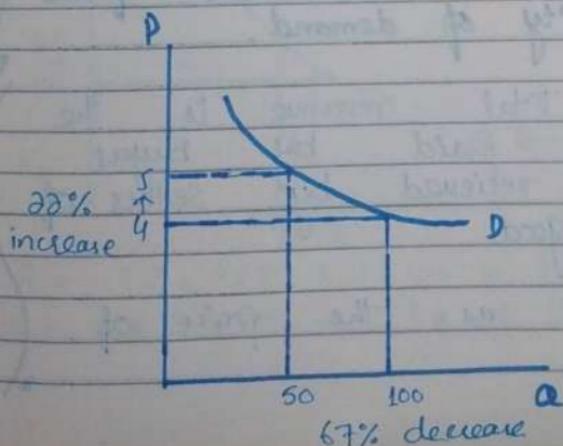
Price changes more and the quantity demanded changes less
 so $Ed < 1 \Rightarrow$ less elastic.

(c) Unit elastic : $Ed = 1$



$$\text{So } Ed = 1$$

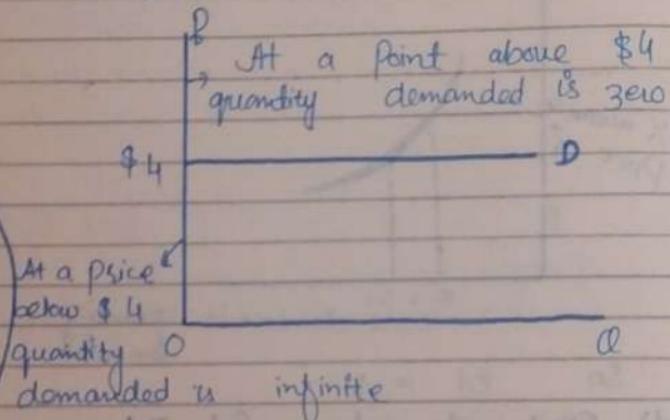
(d) Elastic demand : $Ed > 1$



When "P" changes less but leads to a greater change in quantity demanded so the elasticity will be more.

Perfectly

(e) Unit Elastic demand: $Ed = \infty$



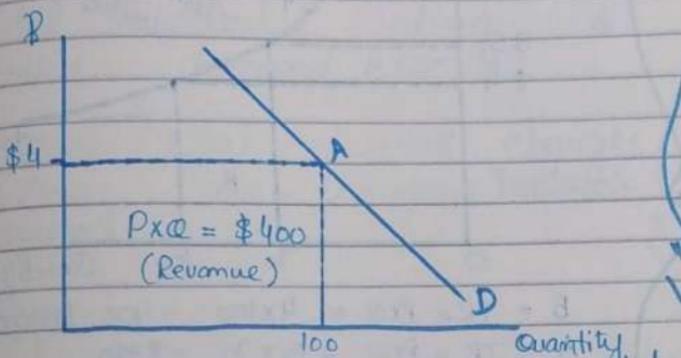
→ Total Revenue and the Price Elasticity of demand.

→ The total revenue is the amount paid by buyers and received by sellers of a good.

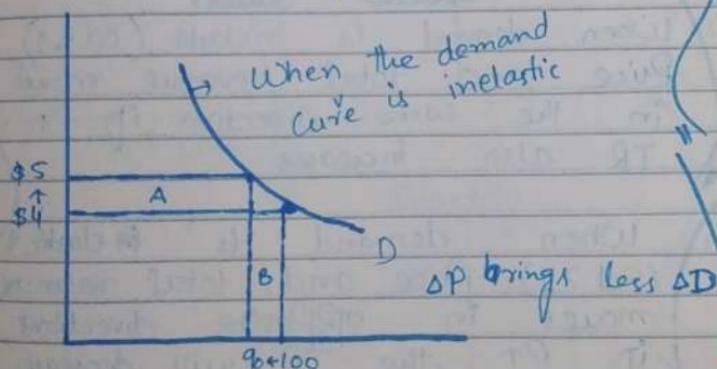
→ Computed as the price of

good times the quantity sold.

$$TR = P \times Q$$



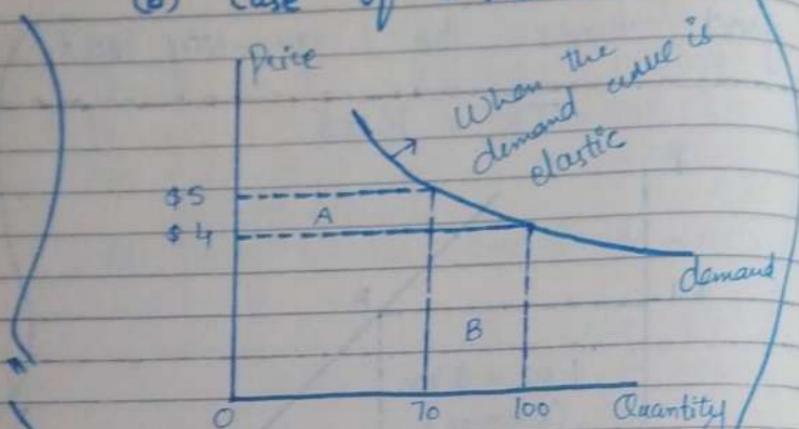
(a) The case of Inelastic demand



$$B = TR = P \times Q \Rightarrow 4 \times 100 = \$400$$

$$A = TR = P \times Q \Rightarrow 5 \times 90 = \$450$$

(b) Case of Elastic demand



$$B = TR = PxQ = 4 \times 100 = 400 \text{ Dollars}$$

$$A = TR = PxQ = 5 \times 70 = \$350$$

The above examples gives some special Rules!

i) When demand is inelastic ($Ed < 1$), Price and total revenue moves in the same direction, if $P \uparrow$ TR also increases.

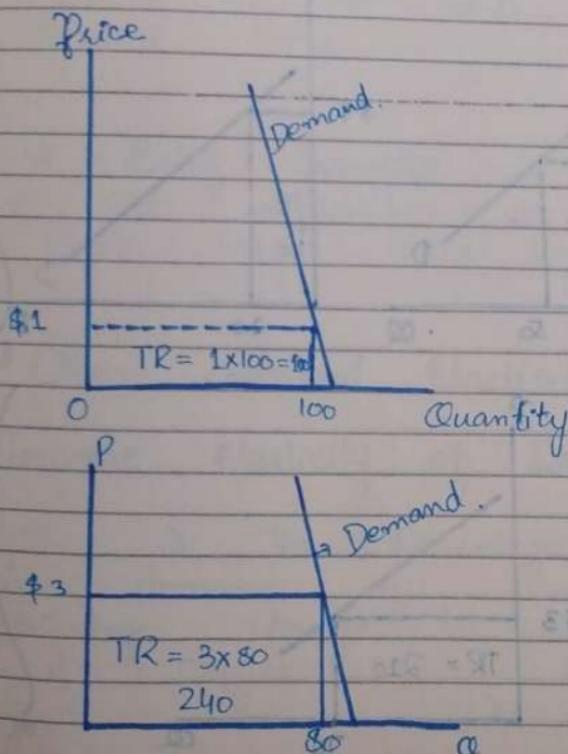
ii) When demand is elastic ($Ed > 1$), Price and total revenue moves in opposite directions, if $P \uparrow$, the TR will decrease.

iii) If demand is Unit elastic $Ed = 1 \Rightarrow$ Total revenue remain

Constant when price changes

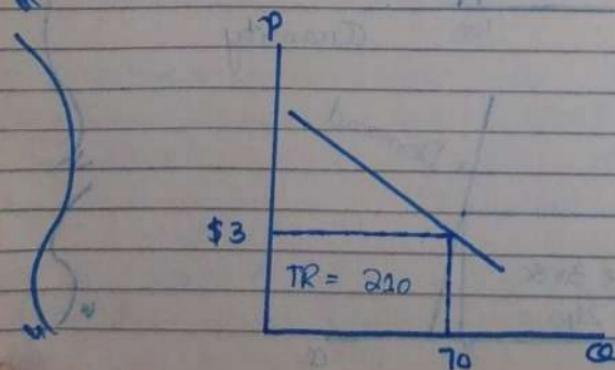
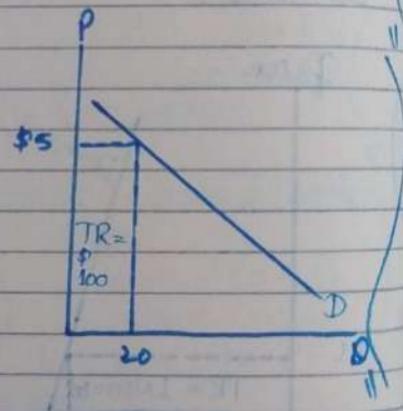
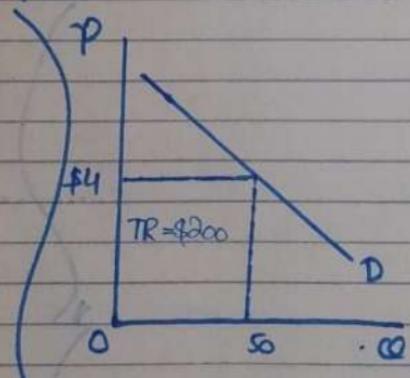
⇒ Elasticity of demand and total revenue along a linear demand curve.

③ How total revenue changes when price changes: Inelastic demand.



So in case of inelastic demand when the price increases which results in increase of Revenue.

(ii) How total Revenue changes when Price changes : Elastic Demand.



So in case of elastic demand
When the price increase the total revenue will be less and vice versa.

→ The linear demand curve illustrates that the price elasticity of demand need not to be same at all points on a demand curve

A brief example is present of TR elasticity at in Book page 97 Figure 4.

Other demand Elasticities &
Income elasticity of Demand &

It is the percentage change in demand due to the percentage change in income of a buyer.

It can be computed as

$$\epsilon_y = \frac{\% \text{ age change in quantity}}{\% \text{ age change in income}}$$

Eg & $Q_1 = 10000, Q_2 = 12000$
 $y_1 = 50000, y_2 = 100000$

$$\Delta Q = \frac{Q_2 - Q_1}{Q_1} = \frac{12000 - 1000}{10000} = \frac{2000}{10000}$$

$$= \frac{1}{5} \times 100\%$$

$$\Delta y = \frac{100000 - 50000}{50000} = \frac{50000}{50000} = 100\%$$

$$\epsilon_y = \frac{\% \Delta Q}{\% \Delta y} = \frac{20}{100} = \frac{1}{5}$$

$$\boxed{\epsilon_y = 0.2\%}$$

Types of Goods &

- (i) Normal Good.
- (ii) Inferior Good.

Higher income rises the quantity demanded for a normal good but

quantity demanded for inferior Good.

Income Elasticity &

i) Goods consumers regard as necessities tends to be income inelastic e.g. food, shelter, Medicines etc.

ii) Goods consumers regard as luxuries tends to be income elastic e.g. Sport car, AC etc

→ Cross Price elasticity of demand.

The Percentage Change in demand of one commodity/goods due to the Percentage Change in Price of other commodity/goods

$$EC = \frac{\% \text{ change in quantity demand of good 1}}{\% \text{ change in price of Good 2}}$$

→ E.g. A 15% increase in Price of Petrol decreases the demand for bike by

10%, what is the EC?

Sol:

$$EC = \frac{\% \Delta D \text{ of good 1}}{\% \Delta P \text{ of good 2}}$$

$$EC = \frac{-10}{5} = -2$$

$$EC = -2 \quad \boxed{\text{compliment}}$$

Eg: Price of dairy milk has increased by 20%. As a result the demand for milk powder increases by 10%. EC = ?

$$EC = \frac{\% \Delta D \text{ of Good 1}}{\% \Delta P \text{ of Good 2}}$$

$$EC = \frac{10}{20} = \frac{1}{2} = 0.5$$

$$EC = 0.5 \quad \boxed{\text{Substitute}}$$

Formula of EC

The mathematical formula of

cross Price elasticity will be.

$$EC = \left(\frac{\Delta D/D_1}{\Delta P/P_1} \right) \times 100$$

The Elasticity of Supply

The elasticity of supply is the proportionate change in supply due to the proportionate percentage change in the price of a product.

It is the measure of how much the quantity supplied of a good responds to a change in the price of that good.

Price elasticity of supply = % change in quantity supplied / % change in price

$$E^S = \left(\frac{\Delta S/S_1}{\Delta P/P_1} \right) 100$$

Example

$$\epsilon_s = \left(\frac{\Delta S/S_1}{\Delta P/P_1} \right) 100$$

P	Q ^s
P ₁ 10	40 S ₁
P ₂ 15	60 S ₂

$$\epsilon_s = \left(\frac{\frac{15-10}{10}}{\frac{60-40}{40}} \right) \times \frac{100}{100}$$

$$\epsilon_s = \frac{1/2}{1/2} \times \frac{100}{100}$$

$$\epsilon_s = \frac{1/2}{1/2} \times \frac{100}{100}$$

$$\epsilon_s = \frac{50}{50} = 1$$

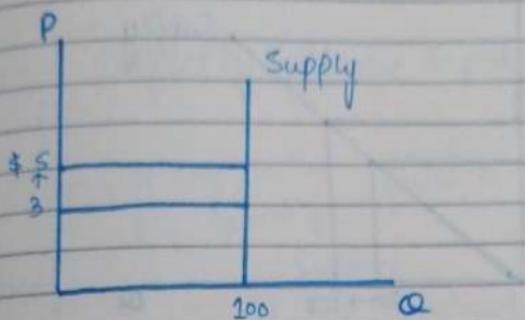
$\epsilon_s = 1 \Rightarrow$ Unit elastic

The Variety of Supply Curves

The Price elasticity of supply determines whether the supply curve is steep or flat.

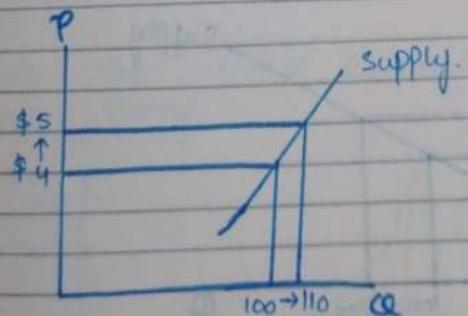
Note, that all percentage changes are calculated using the midpoint method.

(a) Perfectly inelastic supply: $E^s = 0$



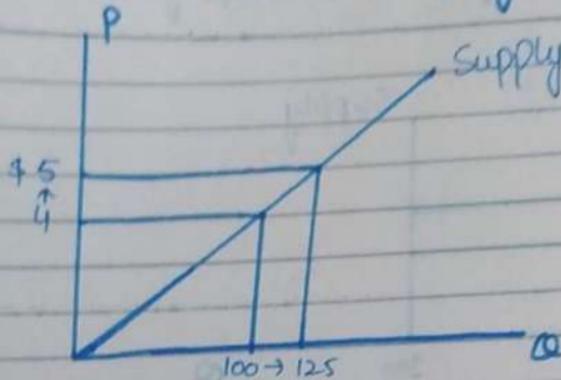
An increase in price leaves the quantity unchanged so $E^s = 0$.

(b) Inelastic supply: $E^s < 1$



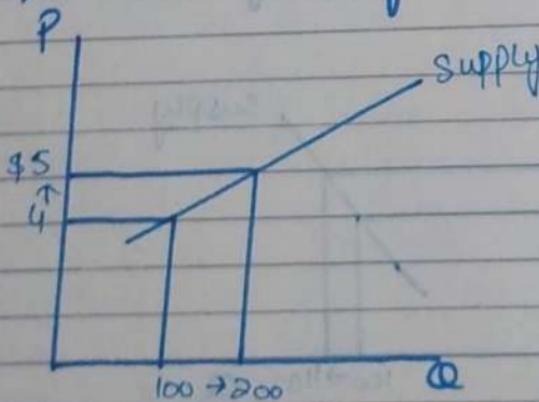
A 22% increase in price leaves to a 10% increase in quantity supplied so $E^s < 1$

(C) Unit elastic supply: $E^S = 1$



A 22% increase in price leads to a 22% increase in quantity supplied so $E^S = 1$

(d) Elastic supply: $E^S > 1$



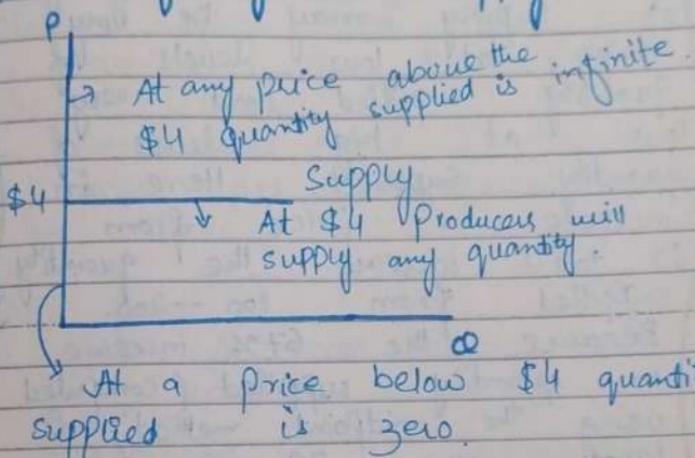
A 22% increase in price leads to 67% increase in quantity

supplied

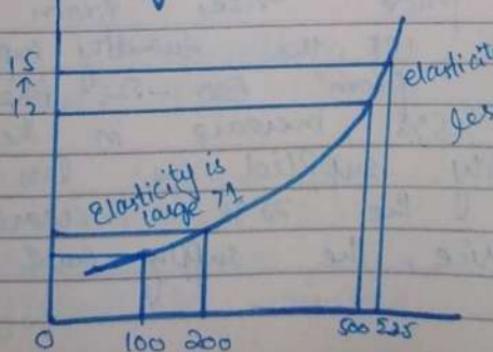
so

$$E^s > 1$$

(e) Perfectly Elastic Supply : $E^s = \infty$



How can the price elasticity of supply vary.



→) Explanation 8

Because firm often have a maximum capacity for production, the elasticity of supply may be very high at low levels of quantity supplied and very low at high levels of quantity supplied. Here an increase in price from \$3 to \$4 increase the quantity supplied from 100 - 200. Because the 67% increase in quantity supplied (computed using the midpoint method) is larger than 29 percent increase in price, the supply curve is elastic in this range. By contrast, when price rises from \$12 to 15\$, the quantity supplied rises from 500 - 525, BIK2 the 5% increase in the quantity supplied is less than the 22% increase in price, the supply curve

is inelastic in this range.

Determinants / Factors of elasticity of supply

Ability of sellers to change the amount of the goods they produce.

- Beach-front land is inelastic
- Books, cars or manufactured goods are elastic.

Time Period.

- Supply is more elastic in the long run.

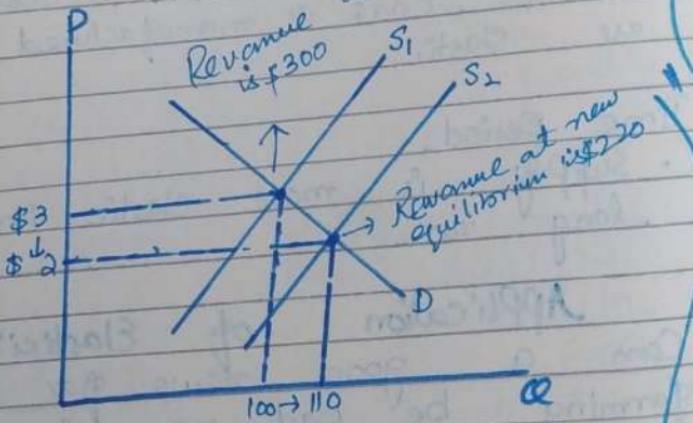
Can a good news for farming be bad news for farmers?

Three Applications of supply, Demand and Elasticity.

What happens to wheat farmers and the market for wheat when the university agronomists discover a new

wheat hybrid that is more productive than existing varieties

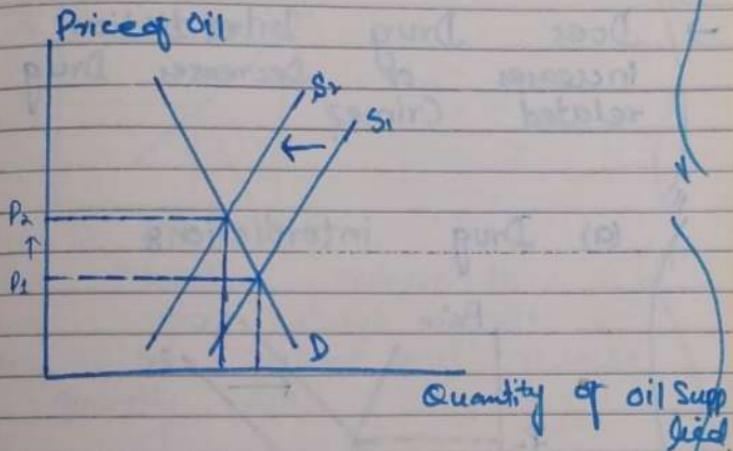
→ So there will be an increase in supply in the market for wheat at initial equilibrium



When demand is inelastic, an increase in supply leads to a large fall/decrease in price and a proportionately smaller increase in quantity sold. As a result, revenue falls from \$300 to \$220

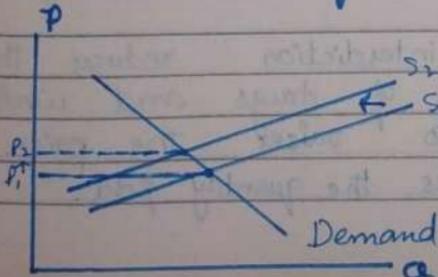
→ Why did OPEC fail to keep the price of oil high.

(a) The oil Market in the Short Run.



In a short run, when supply and demand are inelastic, a shift in supply curve leads to a large increase in price.

(b) In a Long run.

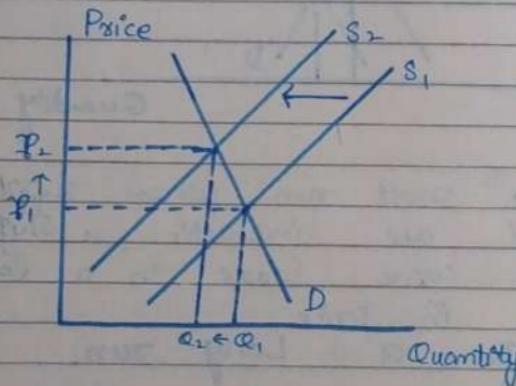


In the long run, when supply and demand are elastic, a shift in supply leads to a small increase in price.

(3)

→ Does Drug Interdiction increases or Decreases Drug related Crime?

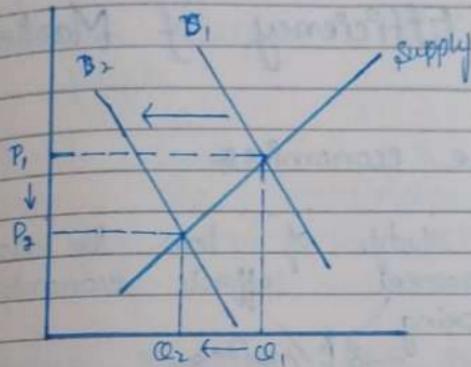
(a) Drug interdictions



→ Drug interdiction reduces the supply of drugs and which leads to raises the price, and reduces the quantity sold.

Chapter # 5

(b) Drug Education



→ Drug education reduces the demand for drugs which reduces the price and reduces the quantity sold.



Chapter No 7

Consumers, Producers, and the Efficiency of Markets

→ Welfare economics

- The study of how the allocation of resources affects economic well-being
- The equilibrium of supply and demand in the market maximizes the total benefits received by buyers and sellers.
- So, basically the welfare economics try to measure which is the level of the well-being for the both sides, one part is producer and the other part consumer / buyer.
- So, we can measure the well-being of the producers and consumers by studying

Consumer Surplus

Surplus and Producer Surplus

→ Consumer Surplus : Willingness to Pay

Consumer Surplus is the difference between the maximum willingness to pay and the actual price of that commodity.

→ Willingness to pay is ~~that~~ the maximum amount that a buyer will pay for a good.

Example 8

Imagine that you own a mint-condition recording of Atif Aslam first album. Because you are not Atif Aslam fan, you decide to sell it. One way to do so is to hold an auction, so four Atif Aslam fans show up for your auction.

Buyers	Willingness to Pay
John	\$100
Paul	80
George	70
Ringo	50

→ Imagine Price of \$80, then John will have a benefit of \$20 which is called consumer surplus.

$$\text{Sx} \text{ Consumer Surplus} = \text{Willingness to pay} - \text{Actual Price}$$

$$\text{Consumer Surplus} = \$100 - \$80$$

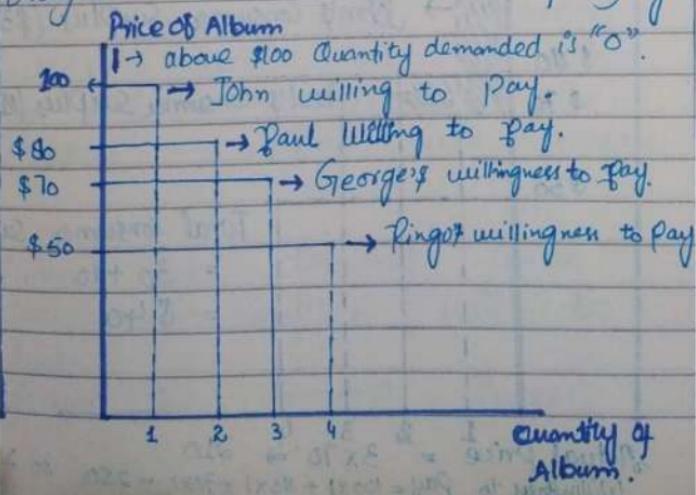
$$\text{Consumer Surplus} = \$20$$

→ Using the Demand Curve to Measure Consumer Surplus &

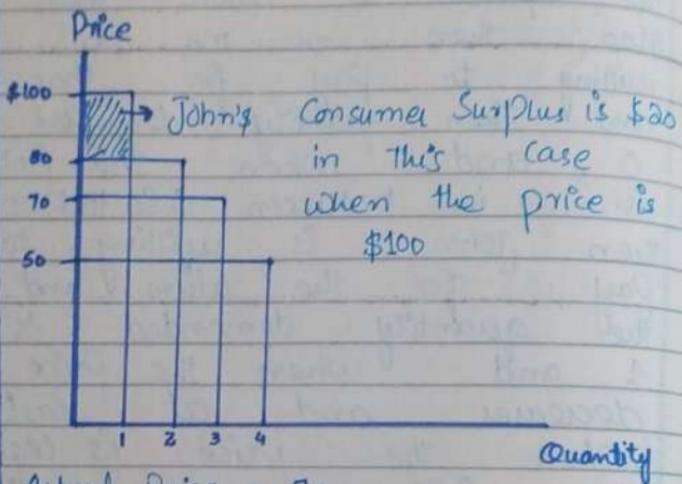
Price	Buyers	Quantity demanded
More than \$100	None	0
\$80 to \$100	John	1
\$70 to \$80	John & Paul	2
\$50 to \$70	John, Paul & George	3
\$50 or less	John, Paul, George, Pingo	4

From the above table we come to know that when

the price is more than \$100 then no one is willing to pay for that and then quantity demanded is 0, and when the price is in between \$80 to \$100 then John is willing to pay for the album and the quantity demanded is 1 and when the price decreases and at last when the price is less than \$50 then all of them are willing to pay and then quantity demanded is 4. Now with the help of diagram we will describe precisely.



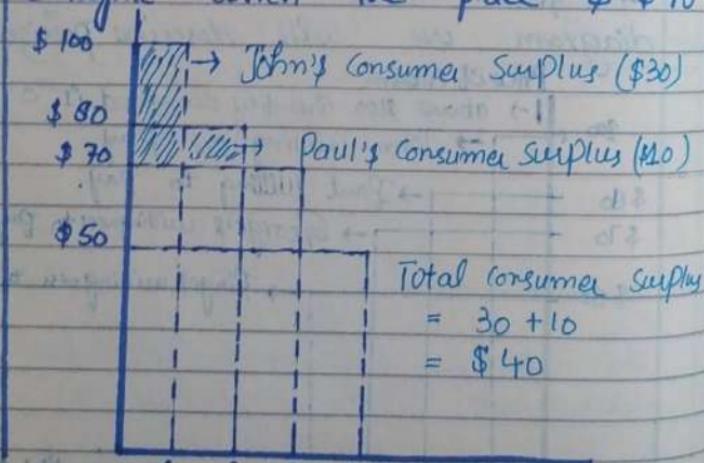
(1) → Imagine the Price is \$80



Actual Price = 80

Willing to pay = 100 $\Rightarrow 100 - 80 = \$20$

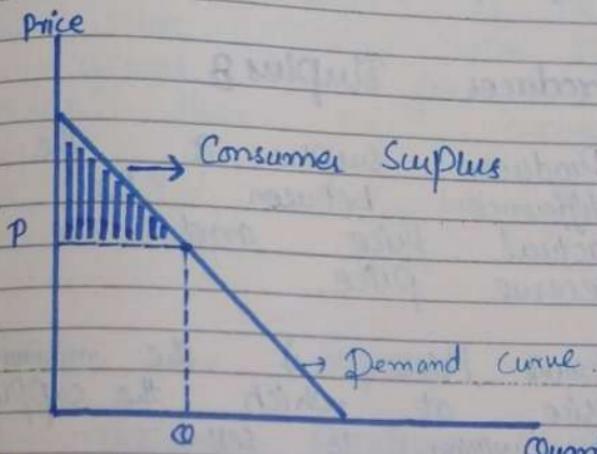
(2) Imagine when the price is \$70



$$\begin{aligned} \text{Total consumer surplus} &= 30 + 10 \\ &= \$40 \end{aligned}$$

$$\begin{aligned} \text{Actual Price } 1 &= 2 \\ &= 3 \times 70 \rightarrow 210 \\ \text{Willingness to pay} &= 100 \times 1 + 80 \times 1 + 70 \times 1 = 250 \text{ so } 250 - 210 = 40 \end{aligned}$$

→ How a Lower price raises Consumer Surplus



So here is discussed how price effects the consumer surplus so when the price goes down the consumer surplus will rise so when the price decreases the consumer surplus will increase.

- ⇒ i) Flatter the demand curve consumer surplus will be small.
- ii) Steeper the demand curve

the consumer surplus will be large / greater.

→ Producers Surplus &

Producer Surplus is the difference between the actual price and the reserve price.

→ Reserve Price is the minimum price at which the supplier is willing to sell.

→ Cost and the willingness to sell &

The cost is the lowest price she would accept for her services, cost is a willingness to sell her services.

Sellers

Mary

Fonda

Georgia

Grandma

Willingness to Sell

\$900

800

600

500

Here we can assume that when we sell the services of Mary to producers well be perfect when she offers the services then the producer will be willing to pay \$1000 for her services, so if Mary will be willing to produce for \$100, so it will be perfect.

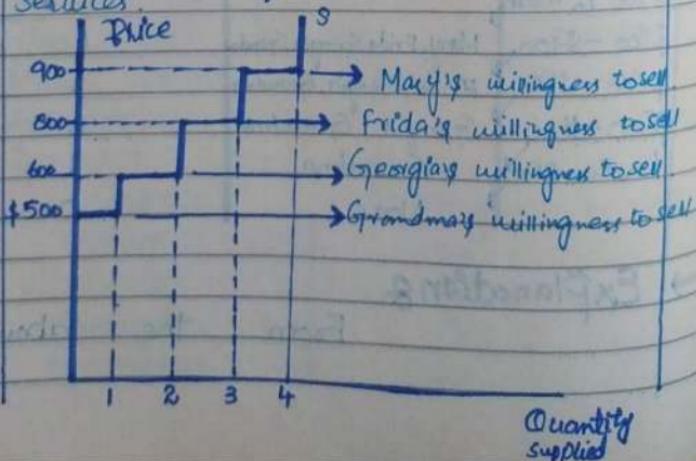
Using the Supply curve to measure Producer Surplus.

Price	Sellers	Quantity Supplied
\$900 & more	Mary, Frida, Georgia, Grandma	4
\$800 - \$900	Frida, Georgia, Grandma	3
\$600 - \$800	Georgia, Grandma	2
\$500 - \$600	Grandma	1
Less than \$500	None.	0

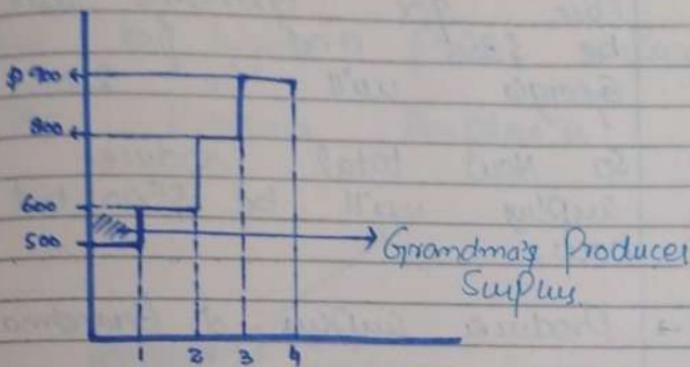
Explanation

From the above

table we come to know
 that when the price is
 less then \$500 of the
 service, None of the sellers
 is willing to sell their
 services for \$500 and
 when these prices rises
 and at point when
 the buyers are willing
 to pay \$900 or more
 for the services of
 the seller then all the
 sellers will sell their
 services because the
 price of the services paid
 is higher than what they
 are willing to sell their
 services.

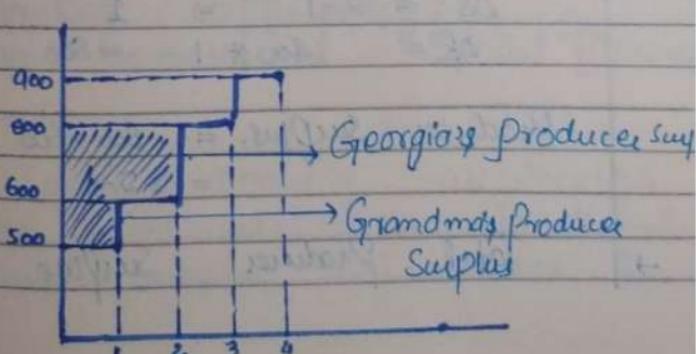


(a) Price = \$600



In case (a) when the Grandma's minimum willingness to sell her service is \$500 but she is actually paid \$600 then the producer surplus of Grandma will be \$100.

(b) Price = \$800



Producer surplus in this case for Grandma will be \$300 and for Georgia will be 200

So now total producer surplus will be \$500 but how.

(ii) → Producer surplus of Grandma

$$P = \$800$$

$$\Delta S = 1 - 0 \Rightarrow 1$$

$$\Delta R = 800 \times 1 = 800$$

$$\begin{aligned} \text{Producer Surplus} &= \text{Actual price} - \text{willing to sell} \\ &= 800 - 500 \\ &= \$300 \end{aligned}$$

(iii) Producer surplus of Georgia.

$$P = \$800$$

$$\Delta S = 2 - 1 \Rightarrow 1$$

$$\Delta R = 800 \times 1 = 800$$

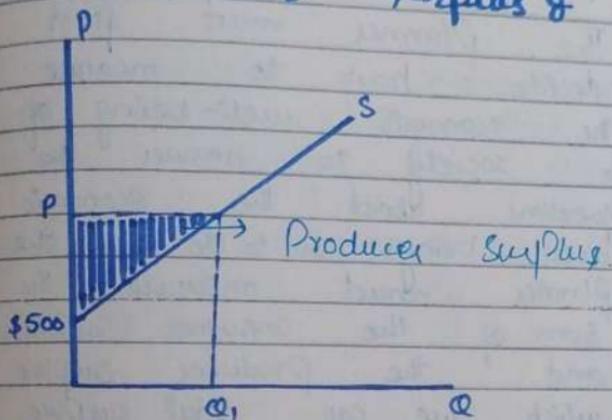
$$\begin{aligned} \text{Producer Surplus} &= 800 - 600 \\ &= \$200 \end{aligned}$$

→ Total Producer Surplus

will be $300 + 200 \Rightarrow \$500$

How a higher price raises

the Producer Surplus?



So we come to know that when the price rises the producer surplus will also rise,

→ Market Efficiency & The benevolent Social Planner

The benevolent social planner is an all-knowing, all-powerful, well-intentioned dictator. To evaluate market outcome, we introduce the

benevolent social planner. The planner wants to maximize the economic well being of everyone in the Society.

The Planner must first decide how to measure the economic well-being of a society to answer the questions about the economic well beings, so to do so the planner must measure the sum of the consumer Surplus and the producer Surplus which we call total surplus.

So

- (i) Consumer Surplus = Value to buyers - Amount paid by buyers.
- (ii) Producer Surplus = Amount received by Seller - Cost to Sellers.

Total Surplus = Consumer Surplus + Producer Surplus.

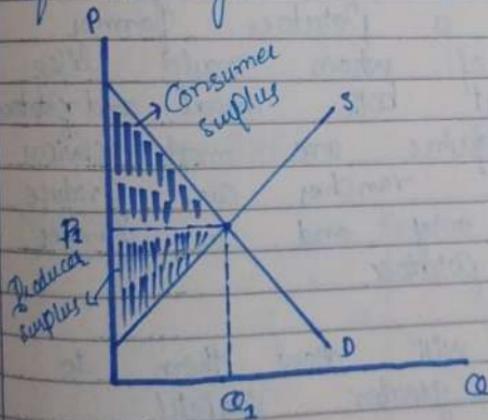
Chapter No 7

Total Surplus = (Value to buyers - Amount paid by buyer)
 + (Amount received by seller - cost of seller)

Total Surplus = Value to buyers - Cost to sellers

If an allocation of resources maximizes total surplus, we say that the allocation exhibits () efficiency.

- Equity : The fairness of the distribution of well-being among the members of society.



The last case of efficient market in book is Page 147 Figure 8

Chapter No 3^{3/3}

Interdependence and the Gains from Trade 8

- Interdependence between Countries
- Suppose there are two goods in the world : meat and Potatoes.
- And there are two people in the world a cattle rancher and a Potatoes farmer.
- Each of whom would like to eat both meat and Potatoes.
- The gains are most obvious if the rancher can produce meat only and the farmer just Potatoes.
- Trade will allow them to enjoy greater Variety.
- Production Possibilities Suppose the farmer and the rancher each work

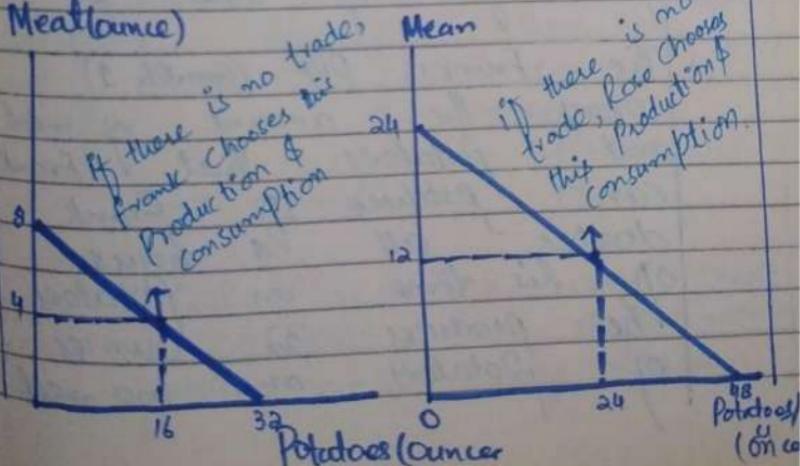
8 hours a week
 They can devote their time
 to growing potatoes, meat
 or a combination of two.

(a) Production Opportunities.

Min	Minutes needed to make 1 ounce of:	Amount Produced in 8 hours	
Meat	Potatoes	Meat	Potatoes
Frank/Farmer	60 min/oz	15 min/oz	8 oz 32 oz
Rose/Rancher	20 min/oz	10 min/oz	24 oz 48 oz

(b) Franks PPF

Meat (lame)



Explanations

The previous table shows that Frank can produce an ounce of potatoes in 15 minutes and an ounce of meat in 60 minutes. Rose, who is more productive in both activities, can produce an ounce of potatoes in 10 minutes and an ounce of meat in 20 minutes. The last two columns in the table show the amount of meat or potatoes Frank and Rose can produce if they devote all 8 hours to producing only that good.

- The Franks' PPF (Graph 1) shows the amount of meat and potatoes that Frank can produce. If Frank devotes all 8 hours of his time on potatoes, he produces 32 ounces of potatoes and no meat.

and if he devotes all his time to meat, he produces 8 ounce of meat and no potatoes. And if he equally divides his time between the two activities spending 4 on each he produces 16 ounce of potatoes and 4 ounces of meat.

In Rose PPF (Graph 2) shows the amount of potatoes and meat that Rose produces.

If Rose spend all time on producing meat so she will produce 24 ounces and if she spend all time on potatoes then she will produce 248 ounces of potatoes and if she equally divides her time then she will produce 12 ounces of potatoes and 24 ounces of meat. She is more productive in both activities from frank.

Here both of them do not trade with each other so they produce the goods and exactly each

consume what he or she produces.
In this case the PPF
is also the Consumption
possibility Frontier.

⇒ Specialization and Trade

After several years of eating
same combinations, they decide
to celebrate an agreement.
So the Rose think that
and said to Frank that
you should stop producing
meat altogether at devote
all your time to growing
potatoes. According to my
calculations, if you work 8 hours
a day growing potatoes,
you will produce 32 ounce
of potatoes if you give
me 15 of these 32 ounces,
^{Frank} I will give you
5 ounce of meat in return.

→ And I will spend 6 hours
raising cattle and a hours

growing produce Potatoes, Then I will and 12 ounce of meat 18 ounce of Potatoes.

At the end you will enjoy 5 ounce of meat and 17 ounce of Potatoes instead of 4 ounce of meat and 16 ounce of Potatoes and I will enjoy 13 ounce of meat and 27 ounce of Potatoes instead of 12 ounce of meat and 24 ounce of Potatoes. So the Gains from Trade are as following in the form of table

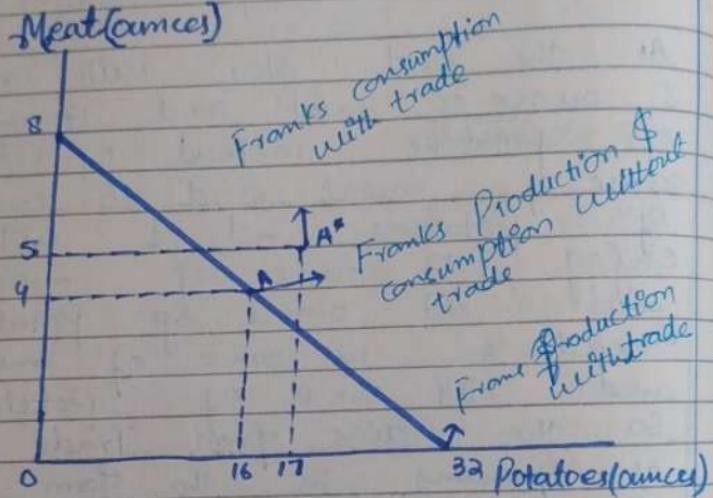
The Gains from Trade : A Summary

	<u>Meat</u>	<u>Potatoes</u>	<u>Meat</u>	<u>Potatoes</u>
--	-------------	-----------------	-------------	-----------------

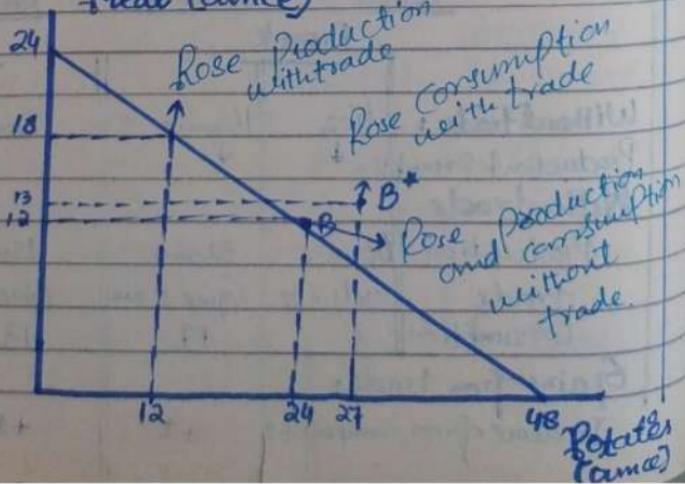
	<u>Frank</u>		<u>Rose</u>	
Without trade :	4'02	16 ounce	12 ounce	24 ounce
Production & Consumption ↓		↓		
With trade				
Production	0ounce	32ounce	18ounce	12ounce
Trade	Gets 5oz	Gives 15oz	Gives 5	Gets 15
Consumption	5	17	13	27
Gains from trade:				
Increase from Consumption +1	+1	+1	+1	+3

→ Graphically 8

(a) Franks Production & Consumption
Meat (ounces)



(b) Rose's Production & consumption
Meat (ounce)



→ The proposed trade between Frank the farmer and Rose the rancher offers each of them a combination of meat and Potatoes that would be impossible in the absence of trade.

Comparative Advantage:

The Driving Force of

Specialization &

i) we want to know who is producing Potatoes at a lower cost - Frank or Rose?
There are two possible answers.

Absolute advantages

Absolute advantage is the ability to produce a good using fewer inputs than another person produces.

Example:

The rancher needs 8 hours to produce an acre of Potatoes.

The farmer needs 10 hours

so, There is absolute advantage for a rancher.

Absolute advantage is the comparison among producers of a good according to their productivity.

In this case the input is time.

Comparative advantages

Comparative advantage is the ability to produce a good at a lower opportunity cost than another producer.

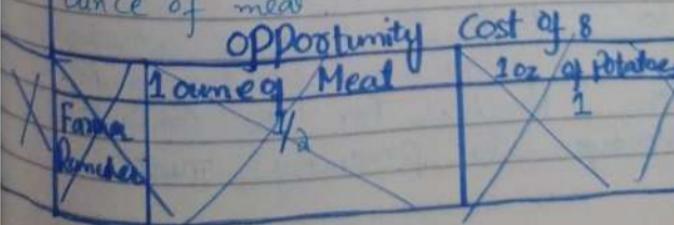
In the case of comparative advantage we compare through opportunity costs.

The rancher producing 1 ounce of potatoes by spending

8 hours of work, then she
loses those hours for producing
meat. The 8 hours lost can be
used producing 8 ounce of
meat. Hence the cost of
one ounce of Potatoes is 8
ounce of meat and hence
the opportunity cost of 1
ounce of Potatoes is $\frac{1}{8}$ ounce
of meat.

The farmer Producing 1 pound
of Potatoes takes him 10
hours, Because he needs 20
hours to produce 1 pound/pound
of meat.

10 hours would yield $\frac{1}{2}$ of meat,
Hence the opportunity cost of
1 pound ounce of Potatoes is $\frac{1}{2}$
ounce of meat



Opportunity Cost of:

	1 oz of meat	1 oz of Potatoes
Farmer	2 oz of Potatoes	1/2 oz of meat
Rancher	1/3 oz of Potatoes	8 oz of meat

- The Producers who has the smaller opportunity cost of producing a good Then it has the comparative advantage producing this good.
- The Producers with the small opportunity cost of producing meat is the Rancher.
- Producers with small opportunity cost of producing potatoes is the Farmer.

So, the Farmer has comparative advantage in producing Potatoes and the Rancher has the comparative advantage in producing meat.

Although it is possible for a person to have an absolute advantage in both goods (as Rose does in our example), but it is impossible for one person to have a comparative advantage in both goods.

→ Comparative advantage and Trade

The gains from specialization and trade are based not on absolute advantage but on comparative advantage. When each person specializes in producing the good for which he or she has a comparative advantage, total production in the economy rises. This increase in the size of the economic pie can be used to make everyone better off.

In our example, Frank spends more time producing potatoes and Rose spends more time producing meat. As a result the total production

of potatoes rises from 40 to 44, and the total production of meat rises from 16 to 18 ounce. Frank and Rose share the benefits of this increased production.

→ The Price of the trade

- The opportunity cost of a good should have a lower opportunity cost for one producer and also should have higher opportunity cost for another producer.
- if the opportunity cost is small for both producers then both will sell and produce meat and if the opportunity cost of meat is higher for both then both will produce potato and no meat. so there should be difference in opportunity cost.

notes Chapter No 3, 3rd year

→ Applications of comparative
advantage &

2 Applications which are
briefly discussed in book

(chap) 3 Page 55



Chapter NO 6

Supply Demand, and Government Policies 8

→ Price Ceiling 8

A price ceiling is a legal maximum price that one pays for some good or service. A government imposes price ceiling in order to keep the price of some necessary good or service affordable.

→ for example 8

When rents begins to rise rapidly in a city, perhaps due to rising incomes or a change in tastes - leaders may pass political laws to pass rent control laws, a price ceiling that usually works by stating that rent can be raised by only a certain maximum percentage each year.

When the price ceiling is set below equilibrium price, quantity demanded will exceed quantity supplied, and excess demand or shortage will result.

→ Price floors

A price floor is a Government - or Group - imposed price control as limit on how low a price can be charged for a product, good, commodity, or service. A price floor must be higher than the equilibrium price in order to be effective.

Governments use price floors to keep certain prices from going too low.

→ An example of a price floor is minimum wage law, where the Government sets out the minimum hourly rate that can be paid for labour... When the minimum wage is set above the equilibrium price for unskilled or low skilled labour the employers hire fewer workers.

→ When the price floor is set above the equilibrium the quantity supplied will exceed

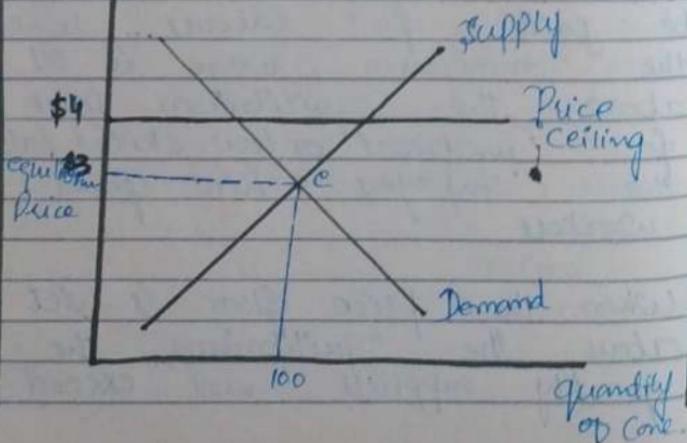
quantity demanded, and excess supply or surpluses will result.

→ Price floors and price ceilings often lead to unintended consequences

→ How Price ceiling Affect Market outcomes

(a) A price ceiling that is not binding

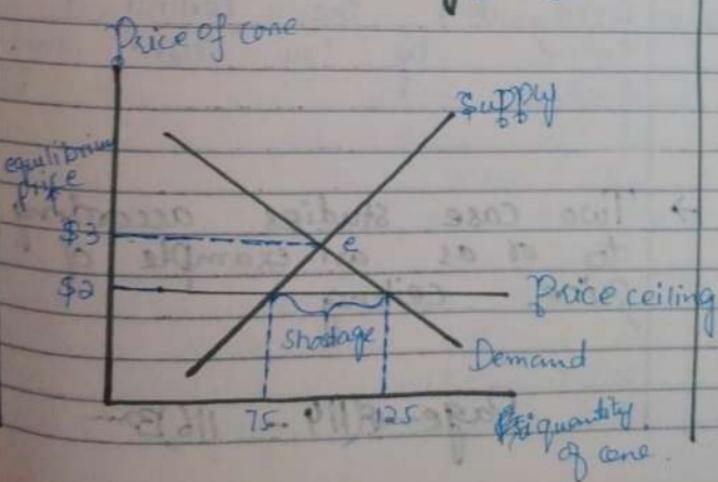
Price of cone



In this case when the government imposes a price ceiling of \$4 per cone, in this case, because the price that balances supply & demand is (\$3) is below the ceiling, the price ceiling is not binding. Market forces naturally move the economy to the equilibrium, and the price ceiling has no effect on the price or the quantity sold.

(b) A price ceiling that

is binding (why?)



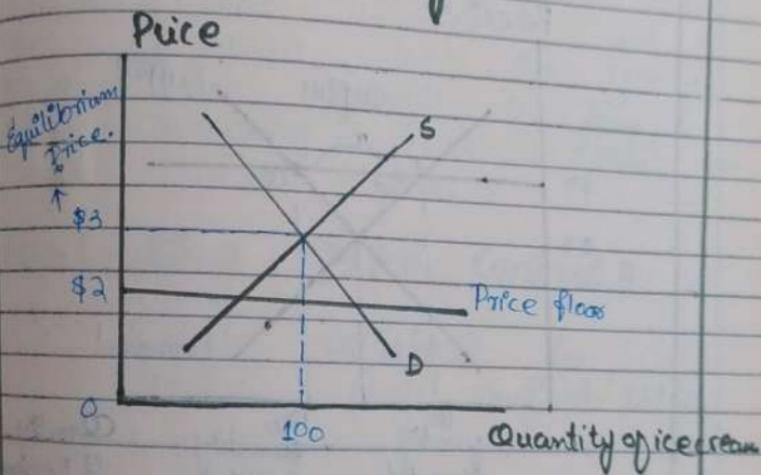
In this case when the government imposes a price ceiling of \$2, because the price ceiling is below the equilibrium price of \$3, the market price equals \$2. At this price, 125 cones are demanded and only 75 are supplied, so there is a shortage of 50 cones. The ceiling is binding constraint on the market. The forces of supply and demand tend to move the price towards the equilibrium price, but when the market price hits the ceiling, it cannot rise any further.

- Two case studies according to us as an example of price ceiling

Pages (114 - 116) Box

→ How Price floors affect Market outcomes &

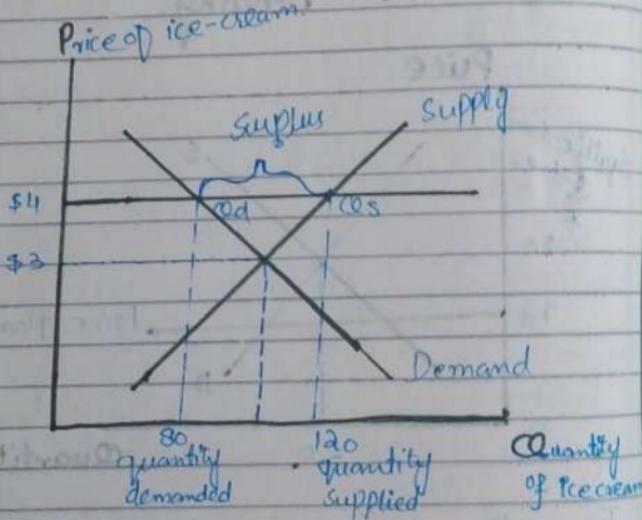
(a) A Price floor that is not binding.



In this case when the government imposes a price floor of \$2. Because this is below the equilibrium price of \$3, the price floor has no effect. The market price adjust to balance supply and demand. At the equilibrium, quantity supplied and quantity demanded both.

equals 100 cones.

(b) A price floor that is binding.



In this case when the government imposes a price floor of \$4, which is above the equilibrium price of \$3. The forces of supply and demand tend to move the price towards the equilibrium price, but when

the market price hits the floor, so then if can fall no further. So the market price regulates the market floor. So the quantity of ice-cream supplied (=) (120) cones exceeds the quantity demanded (As cones). Some people who wants to sell the ice cream at the going price are unable to thus causes a surplus.

→ Evaluating Price Control

Briefly explained in
Book page # 119 - 121

→ Taxes

→ Tax incidence

It is a manner in which the burden of a tax is shared among participants in a market.

Chapter No 6th

After that the two topics
now the tax on buying
and selling affect the
market outcomes

Book Page 121 - 126 Bm

Elasticity and Tax Incidence

Briefly explained in Book
Page 126 - 128 Bm



S & S

Ganesham