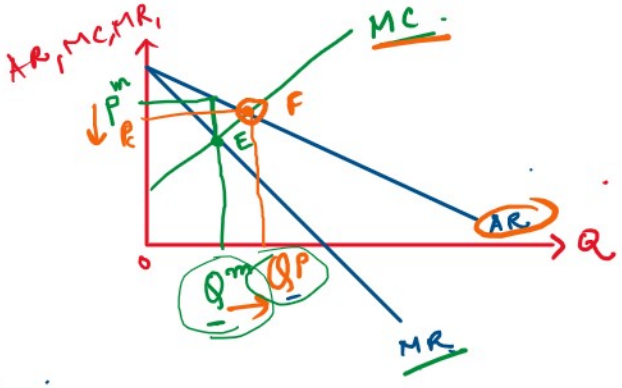
Comparison between price and quantity in a Perfect competition and Monopoly Market :



Monopoly equilibrium at E, MR = MC and P > MC (where monopoly output is OQ^M and price is OP^M).

Perfect competition equil at F, AR = MC (i.e. D = S) (where competitive firm output is OQ^P and price is OP^C)

- Point of comparison:

output in Monopoly market < Perf Competitive market

$$OQ^m < OQ^P$$

and price charged in monopoly > price charged in P.C.

ie $$OP^m > OP^C$$

Dead-weight Loss or Social cost of monopoly :

When a firm shifts from a competitive market to a monopoly market following changes take place:

a) higher price will be charged ⇒ consumer surplus will decrease.

b) " " " ⇒ producer surplus will increase

c) but this increase in producer surplus is less than decrease in consumer surplus.

∴ Social welfare will decrease.

Social cost of Monopoly or DEAD-WEIGHT Loss.

Social welfare (SW) = Consumer Surplus (CS) + Producer surplus (PS).

decrease > increase

SW is decreasing as we move from competitive mkt to monopoly.

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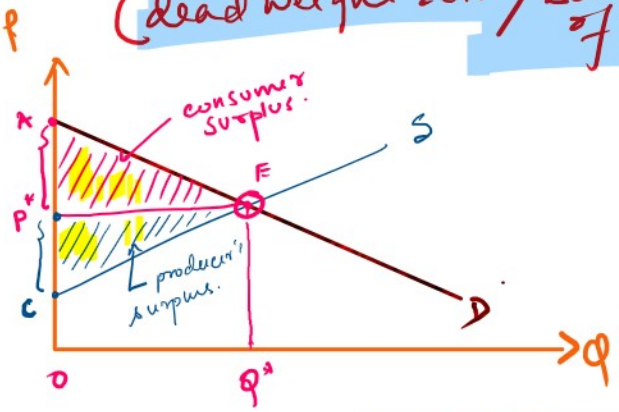
(Dead weight loss / social cost of monopoly)



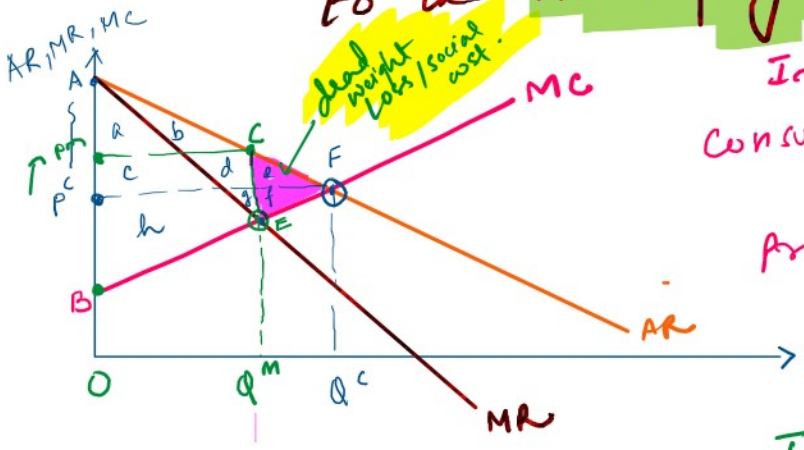
Consumer surplus = area ΔAEP^*

Producer surplus = area ΔCFP^*

Social welfare (SW) = CS + PS

= area ΔAEC

Let us calculate **Dead weight loss** as a producer moves from perfectly competitive market to a monopoly market.



In a perfectly competitive market.

Consumer surplus (CS) = area ΔAFP^c

CS = (a+b+c+d+e)

producer surplus (PS) = area ΔBFP^c

PS = (h+g+f)

SW^p = CS + PS

area ΔAFB = a+b+c+d+e+f+g+h

In a monopoly market

Consumer surplus (CS) = area ΔAP^mC

CS = (a+b)

producer surplus (PS) = area BP^mCE

PS = (c+d+g+h)

SW^m = CS + PS = (a+b+c+d+g+h)

∴ change in social welfare as producer moves from PC to monopoly

$\Delta SW = SW^m - SW^p$

$= (a+b+c+d+g+h) - (a+b+c+d+e+f+g+h)$

$= -(e+f)$

= area ΔCEF

= social cost of monopoly or Dead-weight Loss to society.

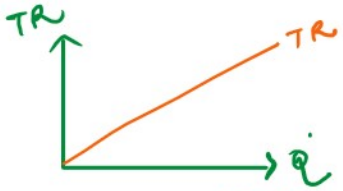
— * —

Revision ⇒ Perfect Competition.

Features:
1. Infinite sellers and buyers.
2. price taker. price const.
3. homogeneous/identical products
4. perfect substitutes available.
5. Free entry and exit
6. perfect knowledge b/w buyers and sellers.
7. No govt interference.
8. No transportation cost.

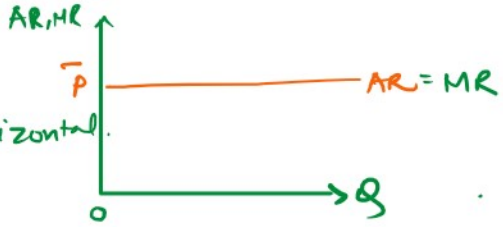
Shapes of Revenue Curve:

① $TR = \bar{P} \times Q$ ⇒ straight line passing through origin.



② Average Revenue $(AR) = \frac{TR}{Q} = \frac{\bar{P}Q}{Q} = \bar{P}$

AR is the demand curve. Horizontal.



③ Marginal Revenue $(MR) = \frac{\Delta TR}{\Delta Q} = \bar{P}$

$\therefore$ **MR = AR = P̄**

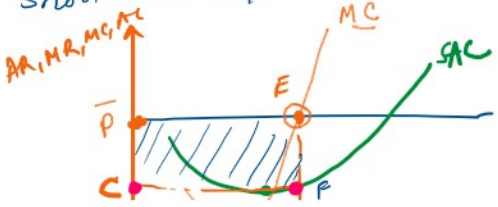
Profit maximising condition / equilibrium: $\bar{P} = AR = MR = MC$

a) In short-run ⇒ supernormal profit
$\bar{\pi} > 0 \Rightarrow TR > TC$.

b) In Long-run ⇒ normal profit
$\bar{\pi} = 0 \Rightarrow TR = TC$

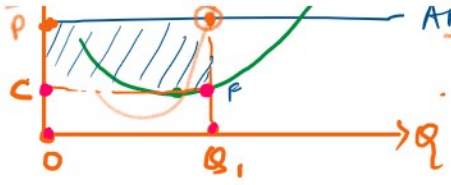
Diagramatically:

Short-run equilibrium:



Short-run equilibrium is at point E where $\bar{P} = AR = MR = MC$

A.C: TR: $\pi\bar{D}$ E m n



P = AR = MR = LMC

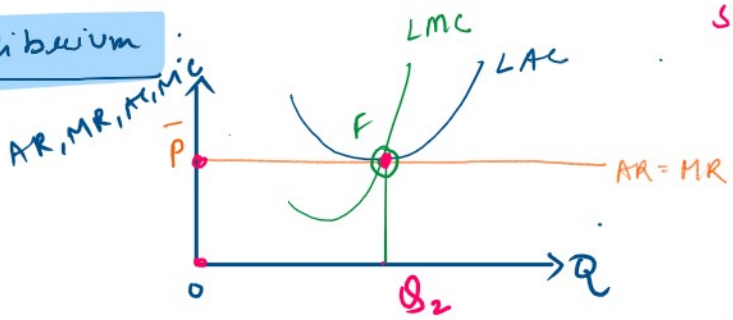
at E : TR = □ P̄ E Q₁ O

TC = □ O C F Q₁

π = TR − TC = □ P̄ E F C > 0.

↑ Supernormal profit (TR > TC) (Shaded area)

Long run equilibrium



Long run equilibrium is at F.

where TR = O P̄ F Q₂

TC = O P̄ F Q₂

∴ Profit π = TR − TC = 0

(Normal profit).