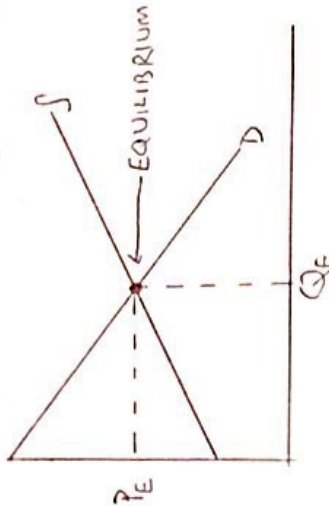


**The Three Qs**

1. What to Produce
2. How to Produce
3. For Whom to Produce

Microeconomics = Study of Ind. Behavior



P=MB Consumer

P=MC Firm

MC=MB IS EQUILIBRIUM & EFFICIENT  
Because everything available at the price is purchased.

Demand = Relationship between P and Q<sub>d</sub>

Q<sub>d</sub> = how many are wanted at specific price

Demand curve has all Q<sub>d</sub> and P combinations

Shifts = ANYTHING NOT PRICE CHANGING

Movements = ONLY PRICE CHANGES

Complement: ↑P of Good 1 = ↓Q<sub>d</sub> of Good 2  
Because ↑P causes less Demand for Good 1

Substitute: ↑P of Good 1 = ↓ Q<sub>d</sub> of Good 2  
People Demand less of 1 and more of cheaper 2

Normal Good = ↑ Income then Q<sub>d</sub> ↑

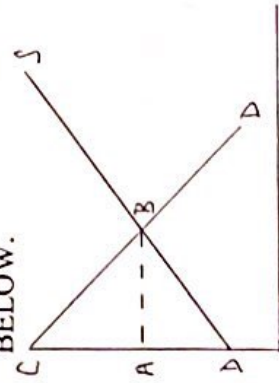
Inferior Good = ↑ Income then Q<sub>d</sub> ↓

Price Floors & Ceilings are only effective if they change behavior in the market

Marginal = how much more \_\_\_\_\_ if one more item is produced/consumed/purchased

Total \_\_\_\_\_ is the combined marginals

SURPLUS— ALWAYS HAS BOTH END POINTS OF THE PRICE LINE.  
CONSUMER ABOVE. PRODUCER BELOW.



CS=ABC PS=ABD

ELASTICITY

E<sub>d</sub> > 1 is Elastic

E<sub>d</sub> < 1 is Inelastic

E<sub>d</sub> = 1 is unit elastic

**ALL ELASTICITY FORMULAS Q<sub>d</sub> ON TOP**

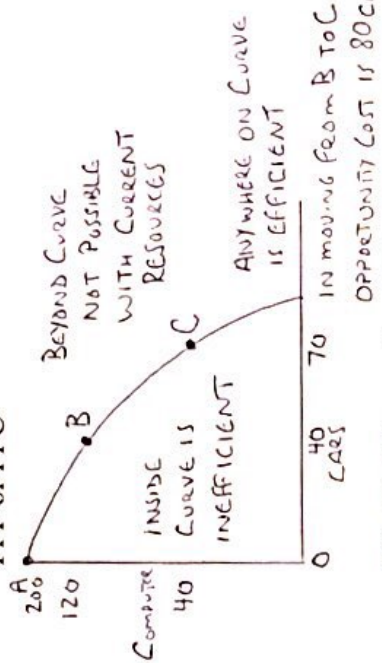
$E_d = \% \Delta Q_d / \% \Delta P$

Income  $E_d = \% \Delta Q_d / \% \Delta \text{Income}$

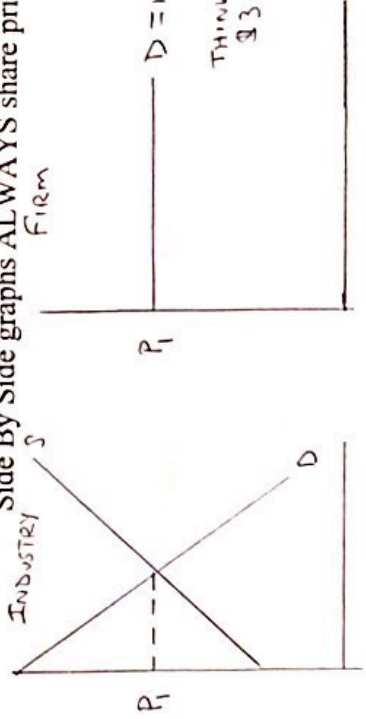
Cross Price Elasticity =  $\% \Delta Q_1 / \% \Delta P_2$

Comparative Advantage is measured by what you give up. Whoever gives up less has comparative adv. Basically, lower opportunity cost

**Production Possibilities Frontier or Curve PPF or PPC**



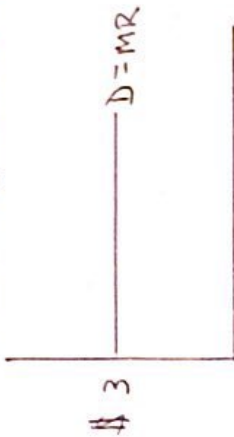
**Side By Side graphs ALWAYS share price**



Competitive Firms = Price Taker

Monopolies & Monopolistically Competitive Firms = Price Maker

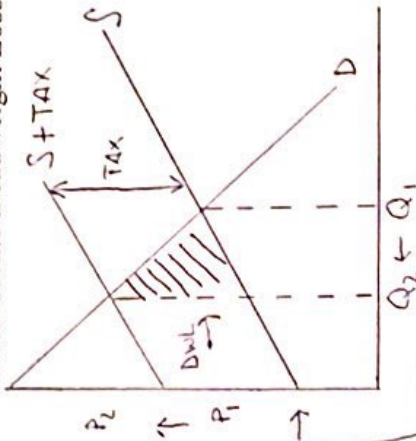
I can sell as much milk as I want so long as I sell at market price so  $MR = P = D$



Diminishing Returns  
As input factors increase growth declines  
Test Scores with Studying

- 0 hours = 0
  - 1 hour = 40 marg. Score 40
  - 2 hours = 70 marg. Score 30
  - 3 hours = 85 marg. Score 15
- Total increases, but growth slows

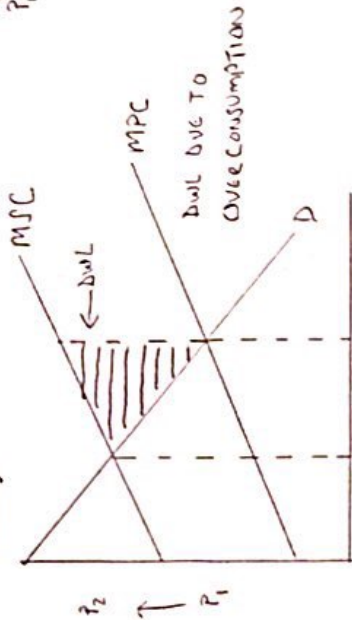
Taxes Create Deadweight Loss



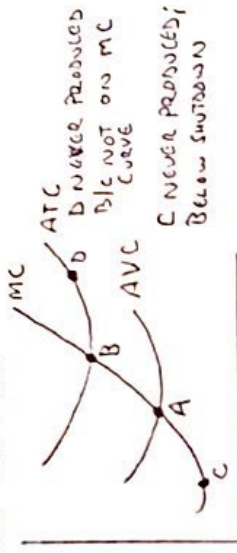
This graph looks just like negative externality with DWL in different place

New PRICE - TAX

Externality = Inefficiency in Market so government steps in to correct. If negative then needs to encourage less so tax. If positive then needs to encourage more so subsidy.

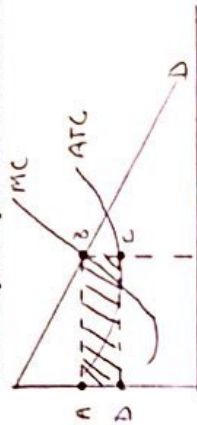


$TC = FC + VC$



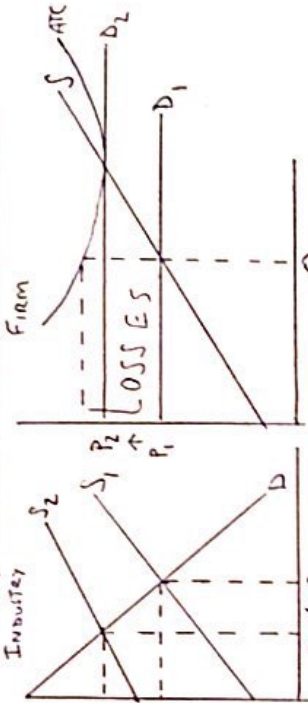
A = SHUTDOWN  $P = AVC$   
B = BREAK EVEN  $P = ATC$

ATC is price per item which matches price



Profits/Losses always rectangle. Draw vertical line from Q produced. From there draw line from ATC and P intersection over to vertical axis. START WITH Q GO UP PROFIT = ABCD

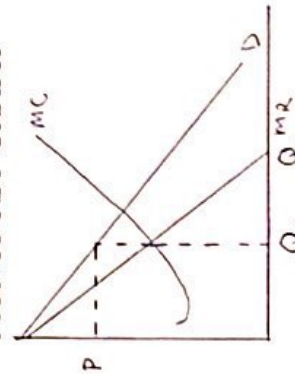
Entry-Exit of Firms Effect on Indiv. Firm



With losses firms exit industry so S shifts left causing P to ↑ until Firm profits = 0 in long term.

With profits firms enter industry shifts S right causing P to ↓ until Firm profits = 0 in long term.

MONOPOLY GRAPH



Monopoly produces at  $MR = MC$ . Price is vertical line at that quantity up to customer found on D.

Maximum Profit at  $MR = MC$

Maximum Revenue where  $MR = 0$ ; Price is vertical line up to D  
Elastic part of D is everything to left of  $MR = 0$

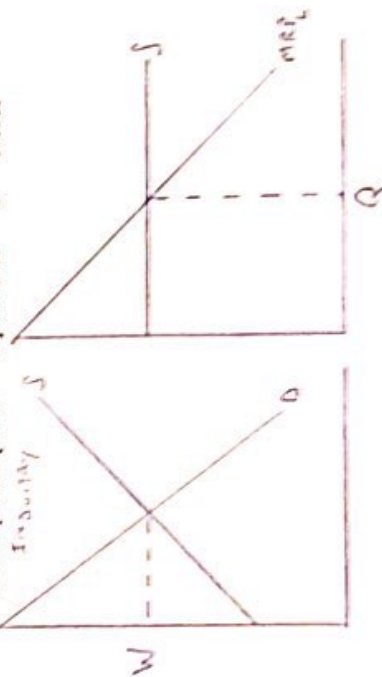


Labor Market is all about  $MRP = W$

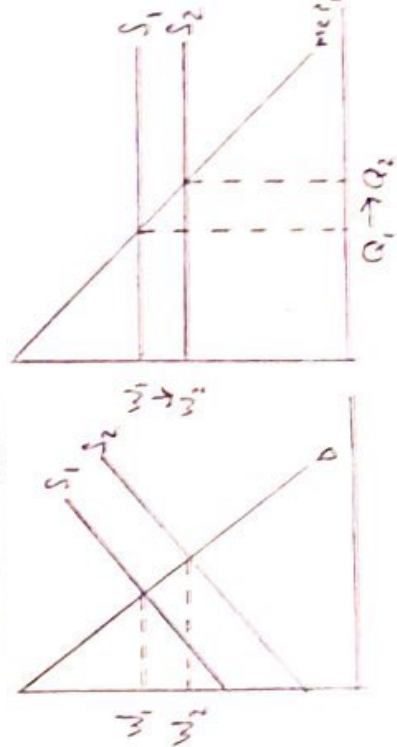
Firms in labor market are just like firms selling milk example. Have to match industry price (W)

Horizontal Supply because firms are "buying" workers.

$D = MRP_1$  because value of worker is how much extra stuff made (Marg. Product) times price [  $MP \cdot P$  ] so  $MP \cdot P = MRP$



Firm can hire as many workers so long as matches industry price



Change in productivity does not change W

Change is Supply of Labor = change in W

Lorenz curve

Perfect income equality = 0 Gini Coefficient  
1 is absolute income inequality

Perfect equality is 45° line  
The more bowed away from center the more unequal the distribution

