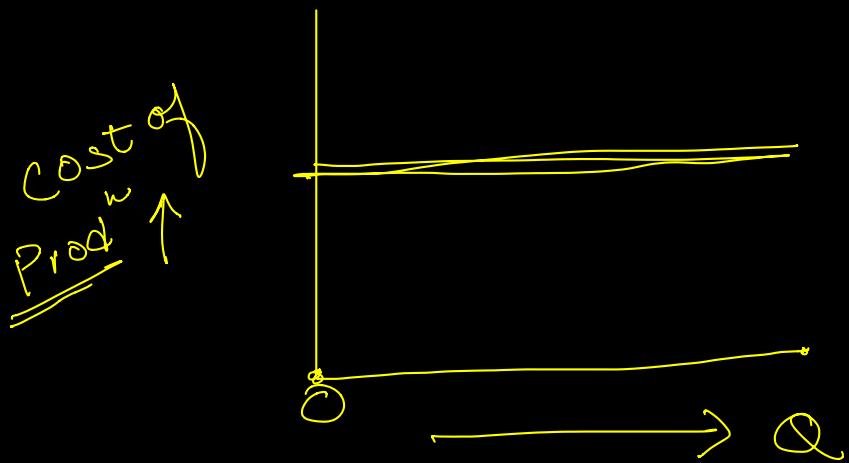
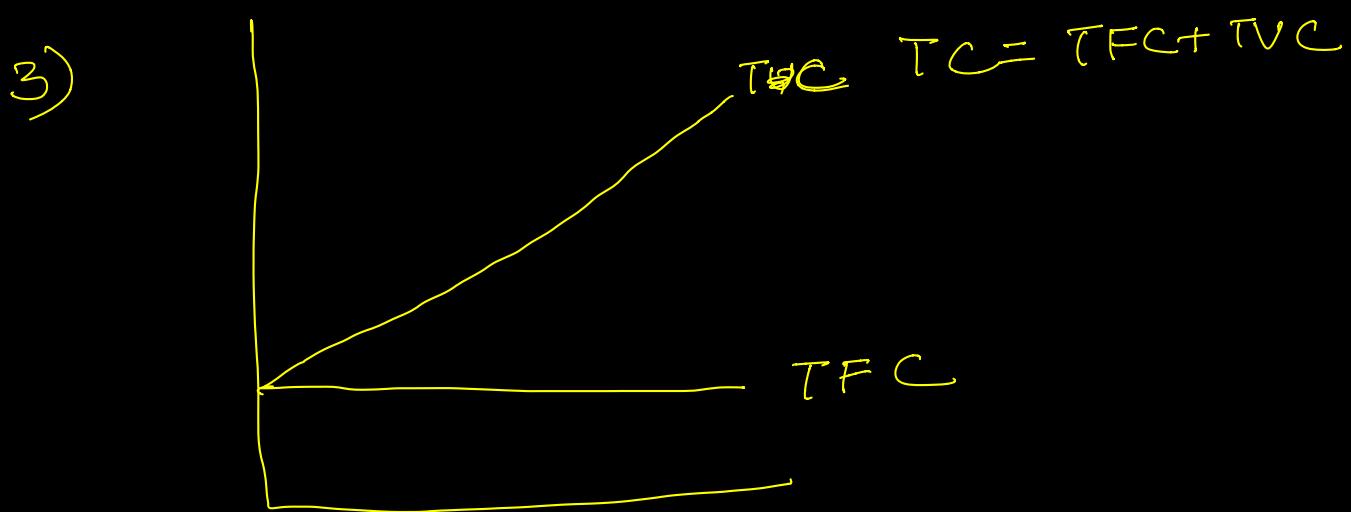


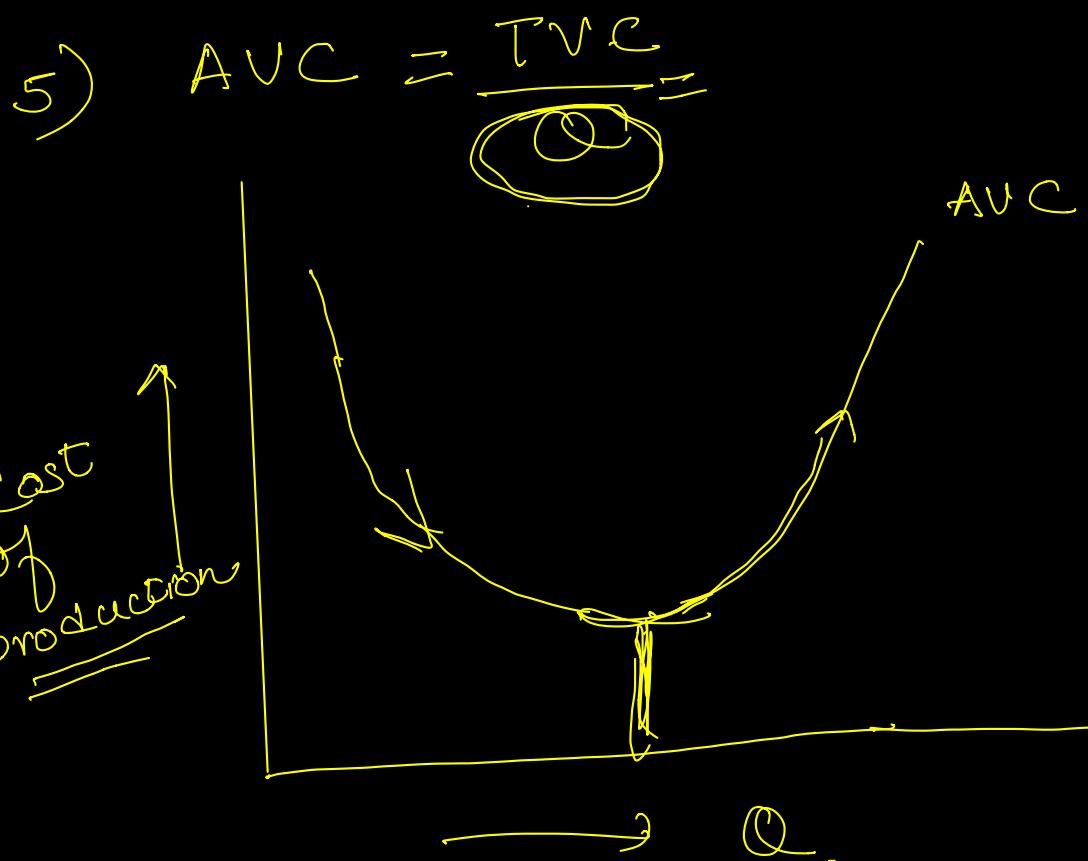
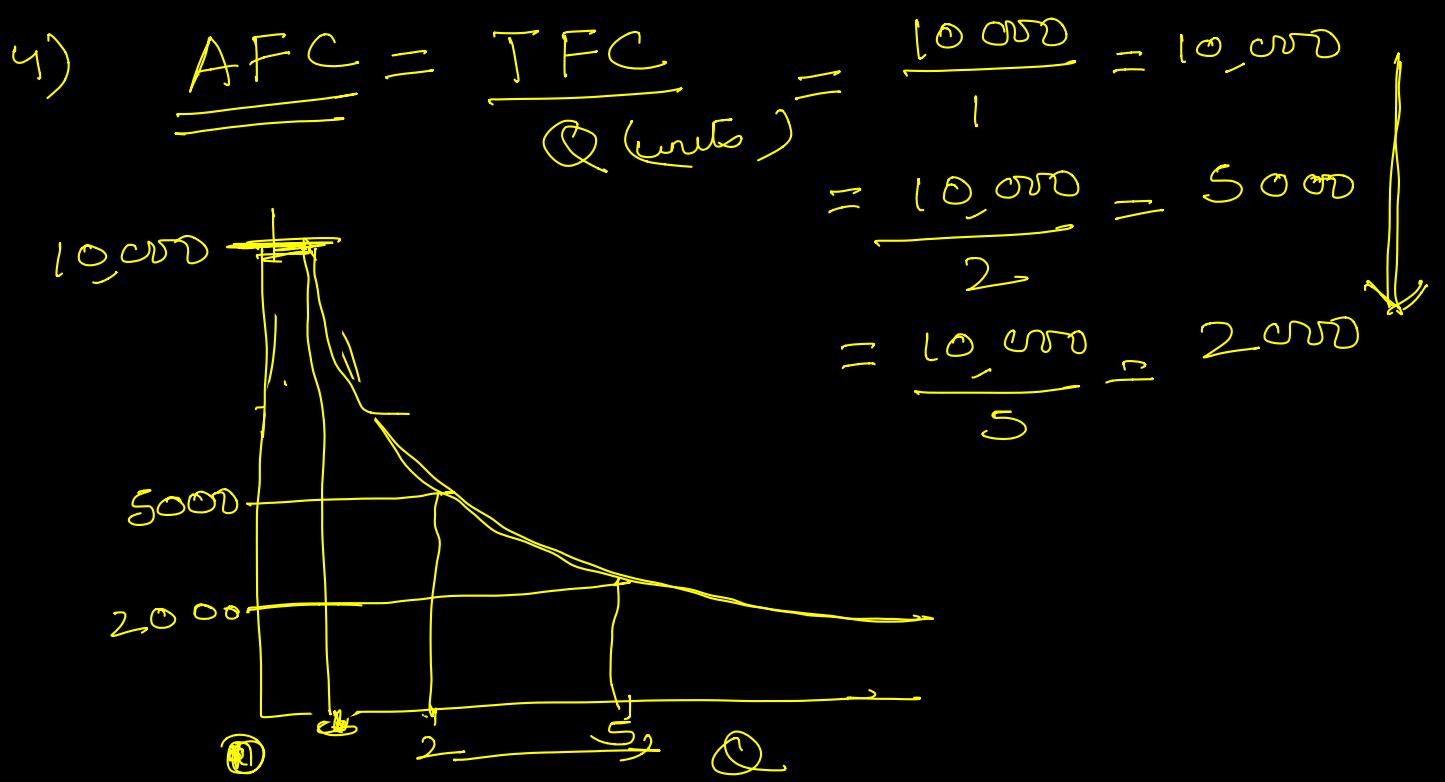
## Short Run

1) TFC = Plant, Mach, Land, Equip



2)  $TVC$

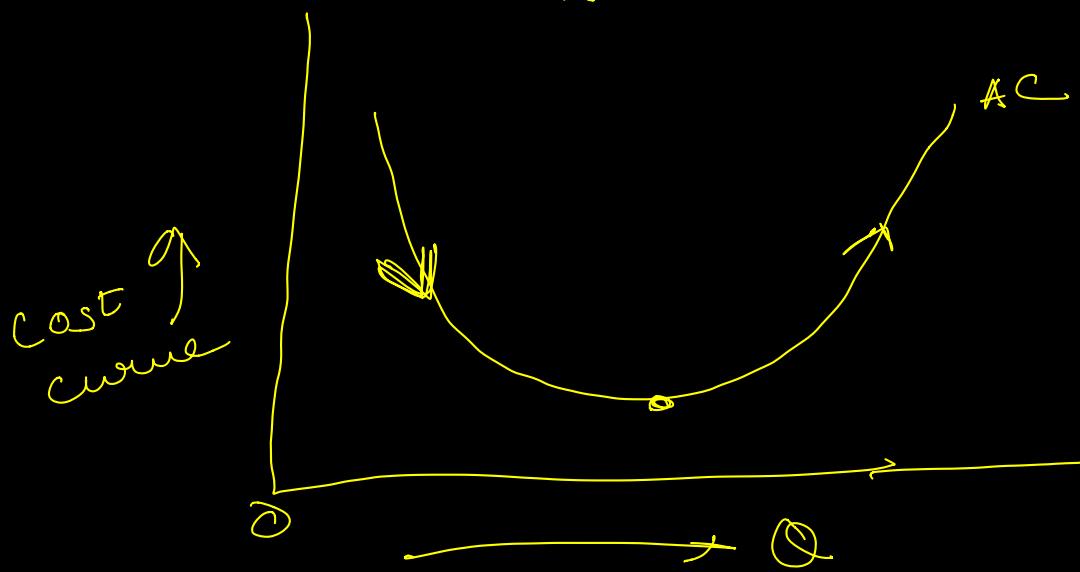




6) Average cost =  $\bar{AC}$

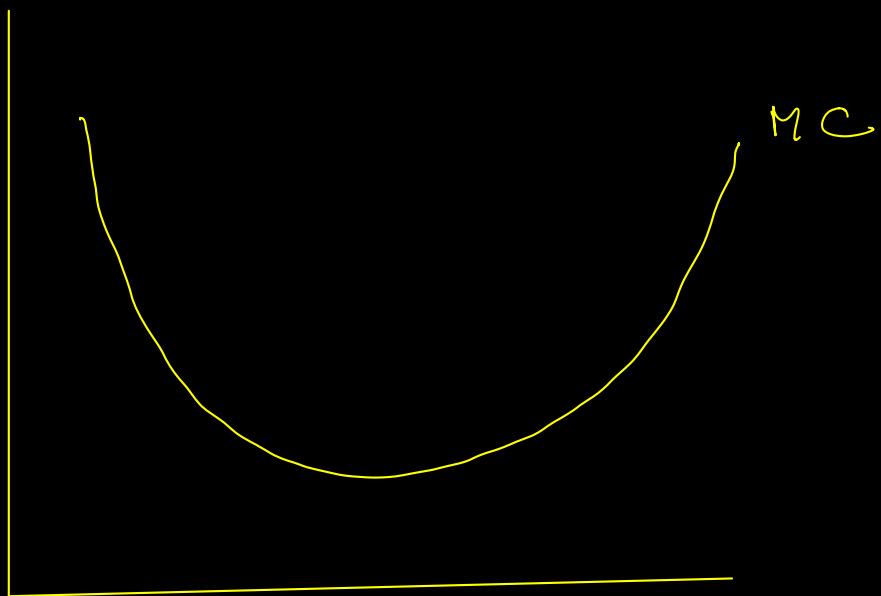
$$ATC = \underline{AFC} + \underline{AVC}$$

$$\bar{AC} =$$

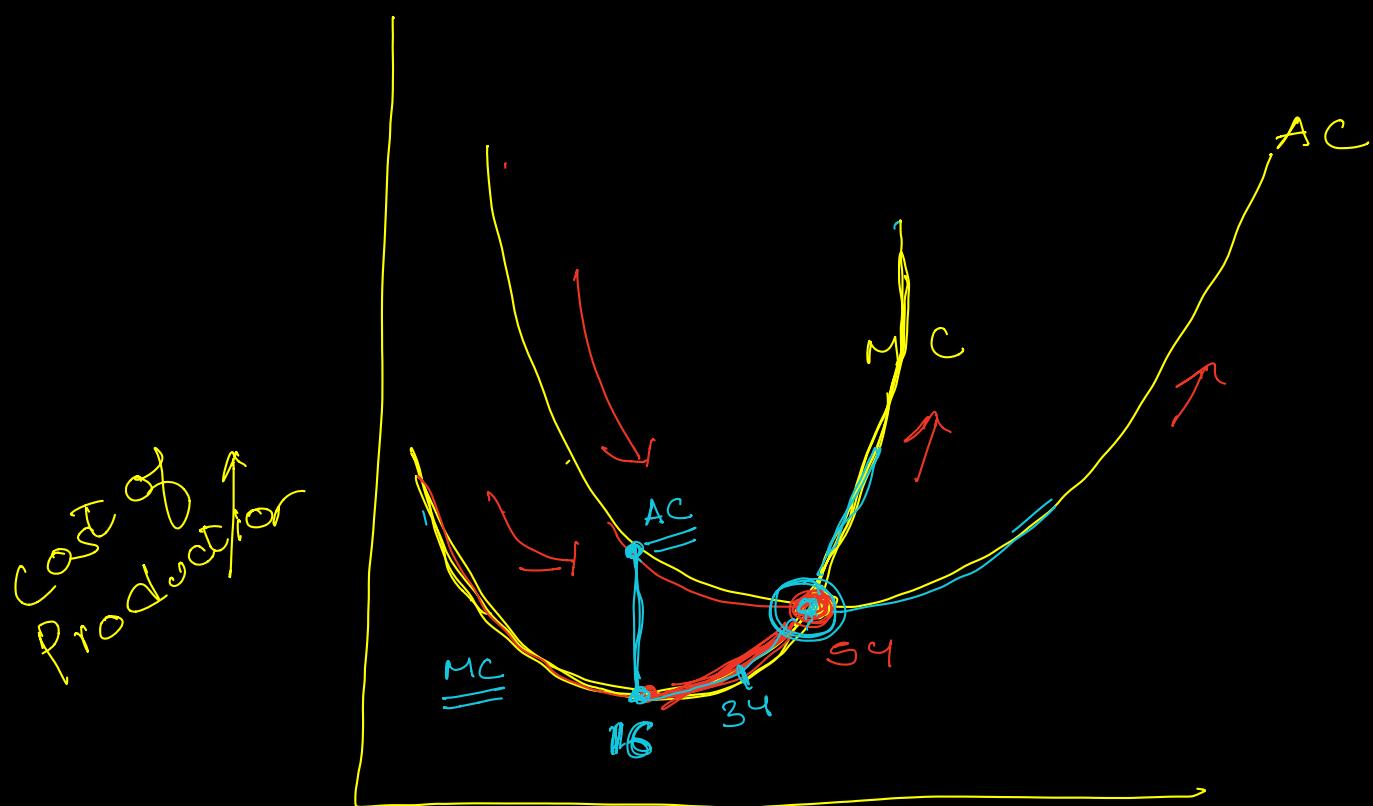


7) MC

$$= \frac{\Delta TC}{\Delta Q}$$



| <u>Output</u> | <u>TFC</u> | <u>TVC</u> | <u>TC</u> | <u>AFC</u> | <u>AVC</u> | <u>AC</u> |
|---------------|------------|------------|-----------|------------|------------|-----------|
| 0             | 360        | -          | 360       | -          | -          | -         |
| 180           | 360        | 180        | 540       | 360        | 180        | 540       |
| 60            | 360        | 240        | 600       | 180        | 120        | 300       |
| 30            | 360        | 270        | 630       | 120        | 90         | 210       |
| 45            | 360        | 315        | 675       | 90         | 78.75      | 168.75    |
| 105           | 360        | 420        | 780       | 72         | 84         | 156       |
| 210           | 360        | 630        | 990       | 60         | 105        | 165       |



- 1) Both  $AC$  &  $AVC$  fall at certain range & rise afterwards.
- 2) When  $AC$  falls,  $MC$  also falls but at certain range of output  $MC$  tends to rise even though  $AC$  continues to fall.
- 3) So long as  $AC$  is falling,  $MC$  is less than  $AC$  hence  $MC$  curve lies below  $AC$  curve.

| Output | T.C | $\frac{T.C}{Q}$ | AC   | MC  | $\Delta \theta_i$ |
|--------|-----|-----------------|------|-----|-------------------|
| 1      | 150 | 150             | 150  | -   | -                 |
| 2      | 190 | 95              | 95   | 90  | $\frac{40}{1}$    |
| 3      | 220 | 73.3            | 73.3 | 30  | $\frac{30}{1}$    |
| 4      | 236 | 59              | 59   | 16  | $\frac{16}{1}$    |
| 5      | 270 | 54              | 54   | 54  |                   |
| 6      | 324 | 54              | 54   | 54  |                   |
| 7      | 415 | 59.3            | 59.3 | 91  |                   |
| 8      | 580 | 72.2            | 72.2 | 165 |                   |

### Cost Functions

- 4) When  $\Delta \theta_i$  AC is rising after the point of intersection, MC will be greater than AC
- 5) MC curve cuts the AC curve at its minimum.