Note Title 7/23/2006

Date: =July 21, 2006

Module =Module 7 - Chapters 13 through 14

ThreeAttempts =YES - I completed all three attempts but my highest score was less than '10.'

Quiz Attempt # 1 = =6

Quiz Attempt # 2 = =9

Quiz Attempt # 3 = =7

Learned:=The factors that contribute to monopolistic competition are now clearer. The Nash Equilibrium, which I have heard of but never quite understood, is now much clearer. Anti-trust is a commonly used term, but I did not fully comprehend it before this chapter.

Questions:=One of the problems I consistently have with the graphics in the book is that they always seem to have ATC and demand intercepting at a common point, so understanding which value is used in a calculation is not always clear, and inevitably appears on the examination. I would have like to have a question or two on collusion -- I did practice problems, but I am not certain I have mastered it.

Partial response -

→ market demand reflects the marginal benefits to both business and consumers in a market without externalities and market power (e.g., monopoly). In the former case $MB_{society} = MB_{private}$ without externalities, in the latter case the difference is between average revenue (AR) and marginal revenue (MR).

(1) $AR = \frac{TR}{Q} = \frac{P \cdot Q}{Q} = P$

The Demand curve is always the pricing curve, but decisions are made at the margin, not on average.

(2) $MR = \frac{\Delta TR}{\Delta Q} = P\frac{\Delta Q}{\Delta Q} + Q\frac{\Delta P}{\Delta Q}$

$= P\left(1 - \frac{1}{E_D}\right)$

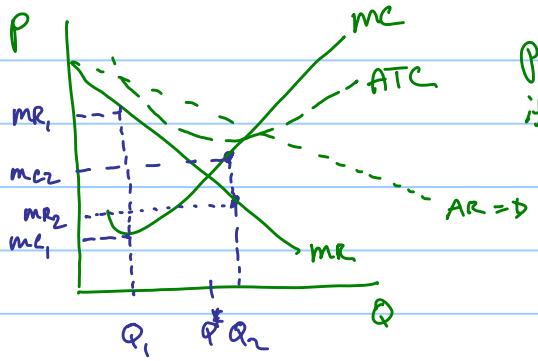
so if $E_D < \infty$ (if E_D is less than perfectly elastic (horizontal) then $MR < P$.

(3) Like wise $ATC = \frac{TC}{Q}$ and

(4) $MC = \frac{\Delta TC}{\Delta Q}$.

So pricing/production decisions follow this pattern:

I. produce Q^* where $MR = MC$. This is the profit maximizing amount. Remember if $MR > MC$ then produce more, if $MR < MC$ then produce less, so if $MR = MC$ this is the optimal point.



at Q_1 $MR_1 > MC_1$ so produce more

at Q_2 $MR_2 < MC_2$ so produce less

at Q^* $MR_* = MC_*$

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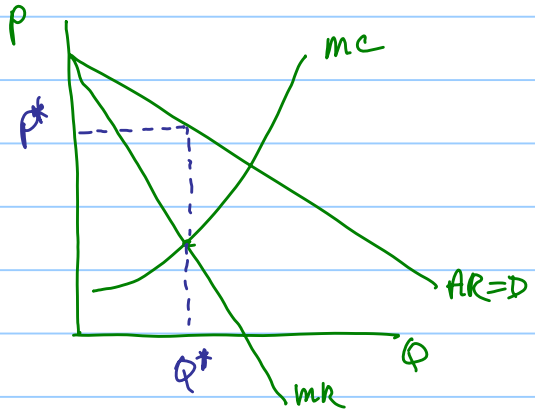
Step II. Given Q^* (where MR=mc), charge the highest price the market will allow to sustain output sales at Q^*. That price is the height of the AR or D curve at P^*. If $P > P^*$ then consumers will buy less than Q^*. If $P < P^*$ then consumers will want more than Q^*.



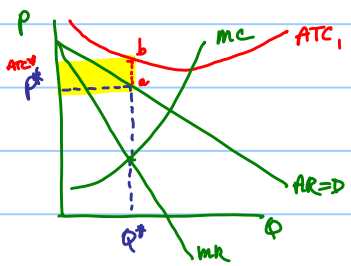
Step III Given Q^* (from step I) and P^* (from step II) then check whether Q^* is leading to a profit, breakeven, or a loss.

A. $TR^* = P^* \cdot Q^*$ TR^* is total revenue.

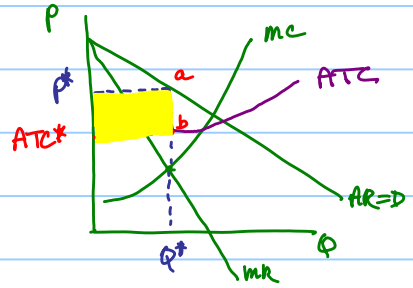
B. TC^* is the total cost of producing Q^*

C. Π^* is the profit and $\Pi^* = TR^* - TC^*$ so if $TR^* > TC^*$ then there is an economic profit at Q^*.

D. AR is TR/Q as defined above
ATC is TC/Q



The ATC can be anywhere on the graph to the left. ATC_1 is a cost curve that leads to a loss as outlined by the points ab P^* ATC^* and shaded in.



The ATC to the graph on the left shows a profit.