5.7 Monopoly Review - Profit Maximization

Saturday, September 12, 2020 7:12 PM

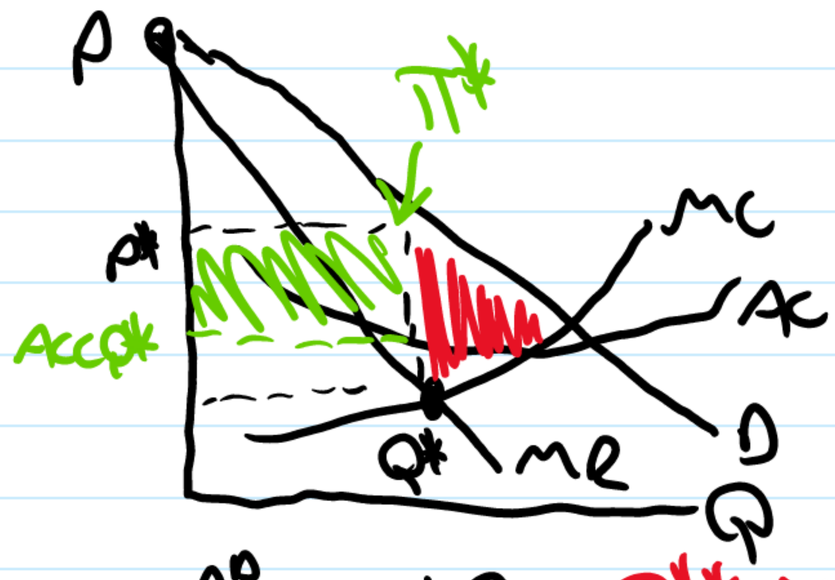
$$\Pi = P(Q)\cdot Q - C(Q)$$

$$\frac{d\Pi}{dQ} = \frac{dP}{dQ}\cdot Q + P - \frac{dC}{dQ} = 0$$

$MR = MC$

		Sell?
10	5	Yes
7	12	No

$MR > MC$? Sell!



$P^D = a - bQ$ $Q^{**} \rightarrow$ Loss

$MR = a - 2bQ$

$P^D = a - bQ$

$R = P\cdot Q = (a-bQ)Q$

$\frac{dR}{dQ} = -b\cdot Q + a - bQ = a - 2bQ$

MR is twice as steep as D

$MR = a - 2bQ = P\left[1 + \frac{1}{3^0}\right]$

ACCQ* = Average cost of Q*

Profit/unit = $P^* - ACCQ^*$