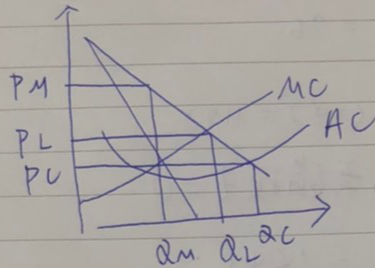Week 11

1.

如圖所示，悟空會根據 AC、D 的交叉訂出 (P_L, Q_L) 價量組合
悟能會根據 MR=0 決定出 Q_C 的產量，價格訂在 P_C，
根據 MR=MC 決定出 Q_M 產量，價格定 P_M

2. $MR = MC$

$p = a - bq$

$MR = a - 2bq$

$a - 2bq = c + eq$

$Q = \dfrac{a-c}{2b+e}$

$p = a - b\left[\dfrac{a-c}{ab+e}\right]$

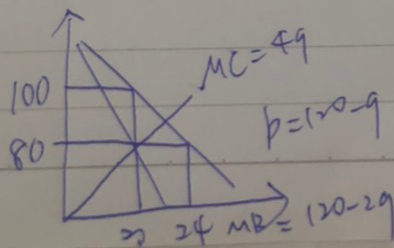$p = \dfrac{ab + ae + bc}{2b+e}$

$Q = \dfrac{a-c}{2b+e}$

$p = \dfrac{ab + ae + bc}{2b+e}$

3. Ⓐ $MR = MC$ $\quad 120 - 2q = 4q \quad q^* = 20 \quad p^* = 100$

$\pi^* = 100 \times 20 - 2(20)^2 = 1200$

$\bar{E}d = 100/20 = 5 \quad MC^* = 80$

獨占力 $= (100 - 80)/100 = 0.1$ ⟩

Ⓑ 無謂損失 $= 20 \times 4 / 2 = 40$

$TS = \dfrac{120 \times 24}{2} = 1440$

Ⓒ $P = MC \quad \begin{cases} q = 24 \\ P = 96 \end{cases}$

$120 - 9 = 4q$

$TU = 96 \times 24 - 2(24)^2 = 1152$

∵ MC訂價 ∴無謂損失 $= 0$.

$TS = \dfrac{120 \times 24}{2} = 1440$

Ⓓ $P = AC \qquad 120 - 9 = 2q \begin{cases} q = 40 \\ P = 80 \end{cases}$

$TU = 80 \times 40 - 2(40)^2 = 0$

$AC \to TS = CS + PS = CS + TU = CS + 0$

$\qquad = CS = (120 - 80)20 = 800$

無謂損失 $= 1440 - 800 = 640$