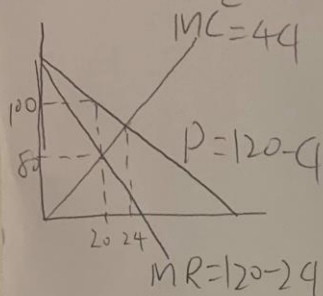


Week 14

3. (A) 利用 $MR = MC$, $120 - 2Q = 4Q$ 解得 $Q = 20$

代入需求函數解得 $P^* = 100$ $\pi^* = 100 \times 20 - 2(10)^2 = 1200$
 $E_d = 100/20 = 5$, $MC = 4Q = 80$



(B) 無謂損失 $= 2 \times 4 / 2 = 40$ (完全競爭之 $TS = 120 \times 24 / 2 = 1440$)

(C) $P = MC$ 故 $120 - Q = 4Q$ 解得 $Q = 24$ 代入需求函數解得 $P = 96$ $\pi = 96 \times 24 - 2(24)^2 = 1152$ 由於是 MC 訂價
 所以無謂損失等於 0 (MC 訂價法則之 $TS =$ 完全競爭之 $TS = 120 \times 24 / 2 = 1440$)

(D) $P = AC$ 故 $120 - Q = 2Q$ 解得 $Q = 40$ 代入需求函數解得 $P = 80$, $\pi = 80 \times 40 - 2(40)^2 = 0$

AC 訂價法之 $TS = CS + PS = CS + \pi = CS + 0 = CS = (120 - 80) \times 40 / 2 = 800$

故仍有無謂損失 $= 1440 - 800 = 640$

背景故事

<https://www.bnext.com.tw/article/54461/gogoro-market-strategy>