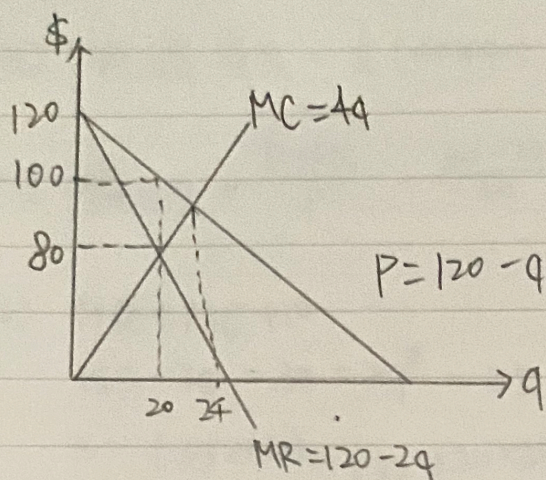


3A) 利用 $MR = MC$, $120 - 2q = 4q$, 解出 $q^* = 20$, 代回需求函數解得 $P^* = 100$. $\pi^* = 100 \times 20 - 2(20)^2 = 1200$, $E_d = 100/20 = 5$, $MC^* = 4q^* = 80$
 獨占力 $= (100 - 80)/100 = 0.2$



B) 無謂損失 $= 20 \times 4/2 = 40$. (完全競爭之 $TS = 120 \times 24/2 = 1440$)

C) $P = MC$, 故 $120 - q = 4q$, 解得 $q = 24$, 代回需求函數解得 $P = 96$
 $\pi = 96 \times 24 - 2(24)^2 = 1152$

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 $q = 40$, 代回需求函數解得 $P = 80$.
 $\pi = 80 \times 40 - 2(40)^2 = 0$

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

故仍有無謂損失 $= 1440 - 800 = 640$