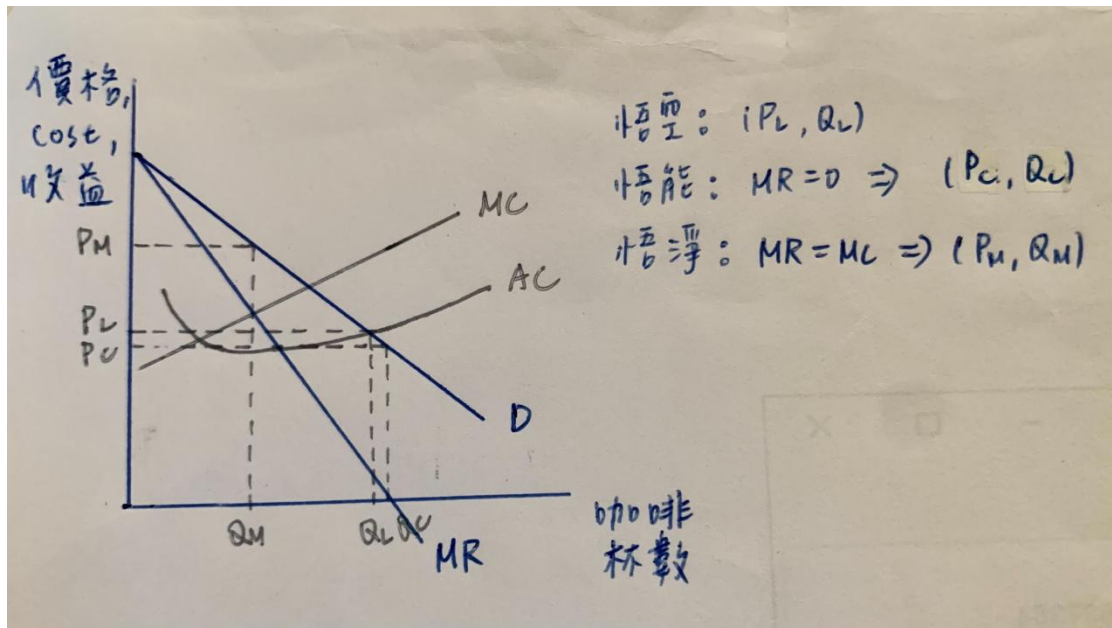


1.



2.

ia) $MR=MC$, $P=a-bQ$
 $a-2bQ=c+eQ$
 $\Rightarrow Q=\frac{a-c}{2b+e}$

The quantity price:
 $P=a-b\left(\frac{a-c}{2b+e}\right)$
 $\Rightarrow P=\frac{ab+ae+bc}{2b+e}$

(b)
 $Q=\frac{a-c}{2b+e}$
 增加 c 或是減少 a 將減少上式的分子 \Rightarrow 減少 Q .

(c)
 $e \geq 0$, $P=\frac{ab+ae+bc}{2b+e}$
 增加 a 將增加上式 P 的分子 \Rightarrow 增加均衡價格.

3.

(A) 利用 $MR = MC$, $120 - 2q = 4q$, 解出 $q^* = 20$, 代回需求函數解得 $P^* = 100$
 $\pi^* = 100 \times 20 - 2(20)^2 = 1200$, $E_d = \frac{100}{20} = 5$, $MC^* = 4q^* = 80$
獨佔力 = $\frac{100 - 80}{100} = 0.2$

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

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

' MC 訂價, \therefore 無謂損失 = 0

(MC 訂價法之 $TS =$ 完全競爭之 $TS = \frac{120 \times 24}{2} = 1440$)

(D) $P = AC$, 故 $120 - q = 2q \Rightarrow q = 40$, 代回需求函數解得 $P = 80$
 $\pi = 80 \times 40 - 2(40)^2 = 0$

AC 訂價法之 $TS = CS + PS = \frac{(120 - 80) \times 40}{2} = 800$

仍有無謂損失 = $1440 - 800 = 640$