c、 因 $e \geq 0$，且需求曲線 $P = a - bQ$ 為負斜率，故 $b \geq 0$

$$P^* = \frac{a(b+e)+bc}{2b+e}, \quad a \uparrow \rightarrow P^* \uparrow$$

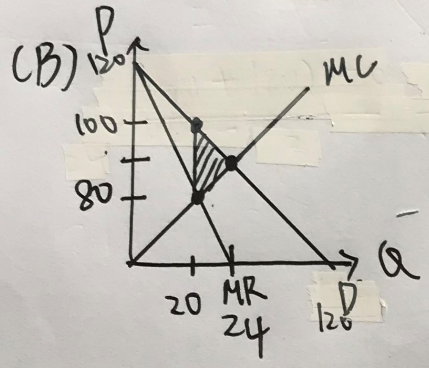
3、

(A) $MR = MC \rightarrow 120 - 2q = 4q \rightarrow q^* = 20;\ P^* = 100$

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

$Ed = \frac{dQ/Q}{dP/P} = \frac{100}{20} = 5;\ L.I. = \frac{P-MC}{P} = \frac{100-80}{100} = 0.2$

(B)



P	0	120
Q	120	0

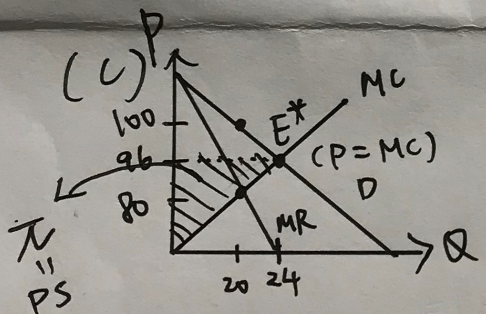
$4q = 120 - q$ $\quad 120 - 2 \cdot 20 = 80$

$q^* = 24$

$P^* = 96$

無謂損失 $= \frac{(100-80)(24-20)}{2} = 40$

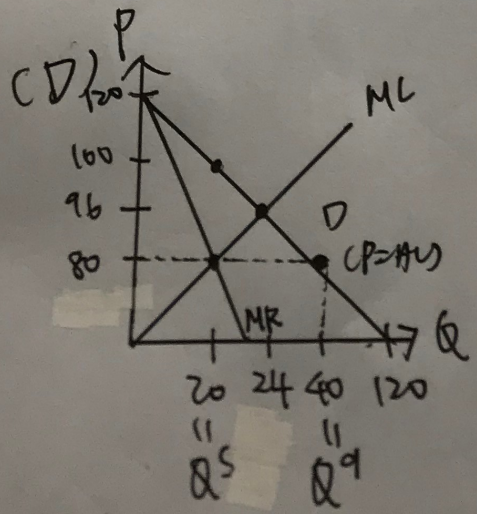
(C)



$P^* = 96;\ Q^* = 24;$

$DWL = 0;\ \pi = \frac{96 \times 24}{2} = 1152$

(D)



$P = MC = 2q = 120 - q$

$\rightarrow q = 40,\ P = 80$

$DWL = \frac{120 \cdot 24}{2} - \frac{(120-80) \cdot 40}{2} = 640$