

隨 6  $D=P=120-Q$ ,  $TC=2Q^2$

A)  $P^*$ ,  $Q^*$ ,  $\pi^*$ ,  $Ed$ ,  $L$

$$TR = P \times Q = 120Q - Q^2$$

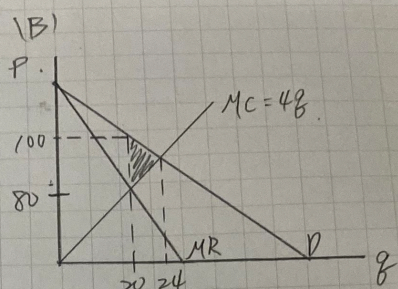
$$\begin{cases} MR = 120 - 2Q \\ MC = 4Q \end{cases} \Rightarrow Q^* = 20 \#$$

$$P^* = 100 \#$$

$$\pi^* = 2400 - 400 - 800 = 1200 \#$$

$$L = \frac{P-MC}{P} = \frac{100-80}{100} = \frac{1}{5} \#$$

$$Ed = \frac{5}{1} = 5 \#$$



$$DWL = \frac{20 \times 4}{2} = 40 \#$$

C) 以 MC 訂價,  $P^*$ ,  $Q^*$ ,  $\pi^*$ ,  $DWL$

$P = MC$  [完競]

$$120 - Q = 2Q \Rightarrow Q^* = 24$$

$$P^* = 96 \#$$

$$\pi^* = 96 \times 24 - 2 \times 24^2 = 1152 \#$$

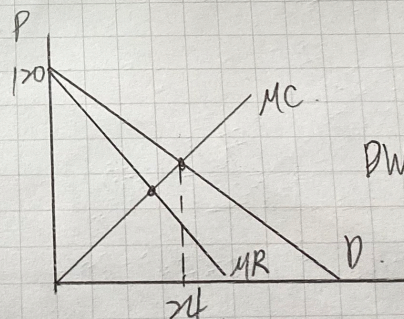
(D) 以 AC 訂價,  $P^*$ ,  $Q^*$ ,  $\pi^*$ ,  $DWL$

$P = AC$

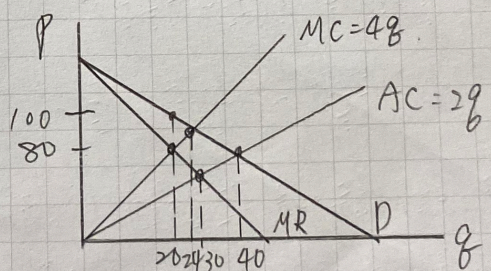
$$120 - Q = 2Q \Rightarrow Q^* = 40$$

$$P^* = 80$$

$$\pi^* = 40 \times 80 - 2 \times 40^2 = 0 \#$$



$DWL = 0$



$$DWL = \frac{120 \times 24}{2} - \frac{40 \times 40}{2} = 640$$