

(1) 以完競定價, 損失?, DWL?

$$P = MC = 20 \Rightarrow q^* = 80, p^* = 20$$

$$\pi^* = -30$$

$$DWL = 0$$

隨 6. $D: P = 120 - q, TC = 2q^2$

(A) $p^*, q^*, \pi^*, \epsilon_d; L$

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

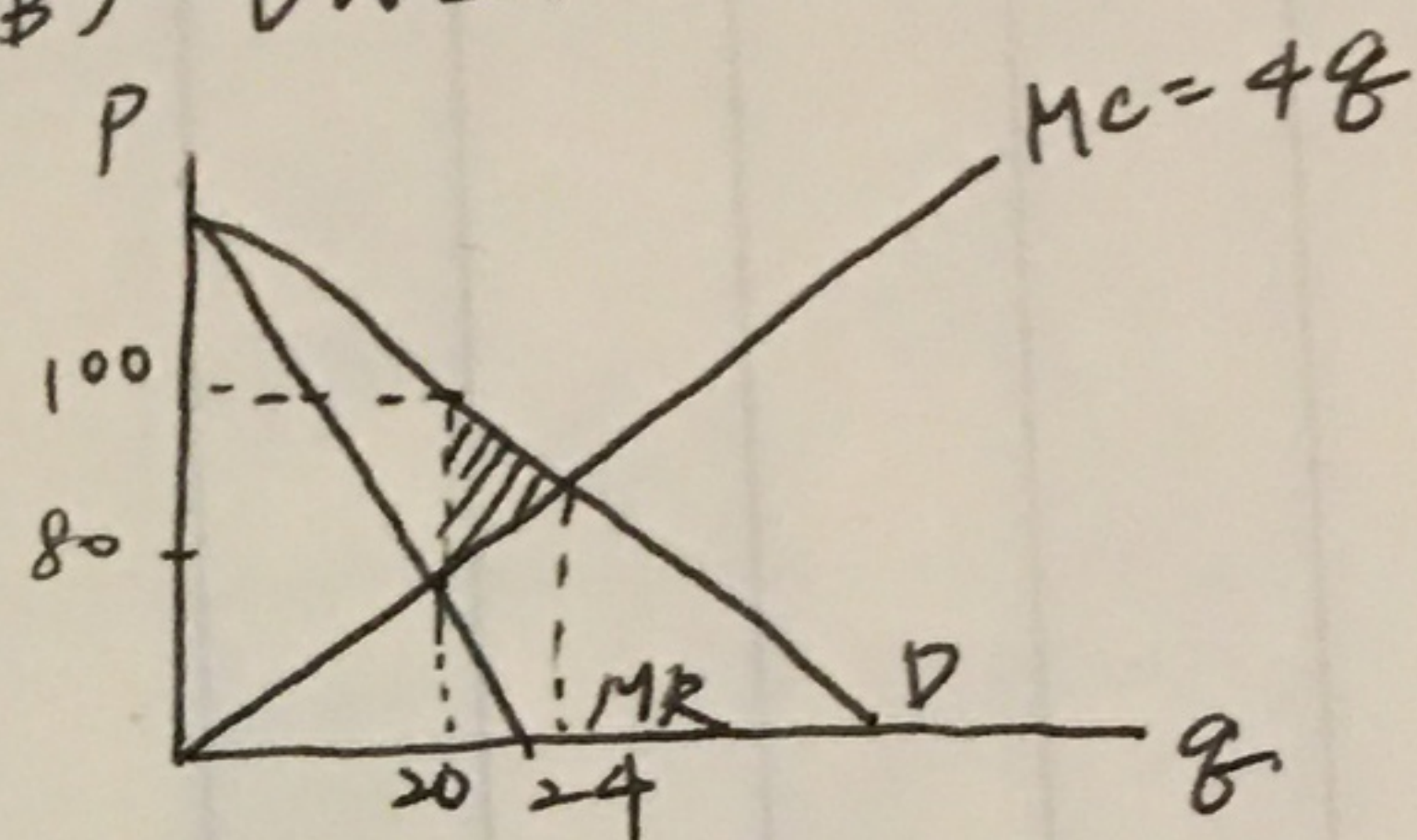
$$\begin{cases} MR = 120 - 2q \\ MC = 4q \end{cases} \Rightarrow q^* = 20, p^* = 100 \text{ \#}$$

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

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

$$\epsilon_d = \frac{5}{1} = 5 \text{ \#}$$

(B) DWL.



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

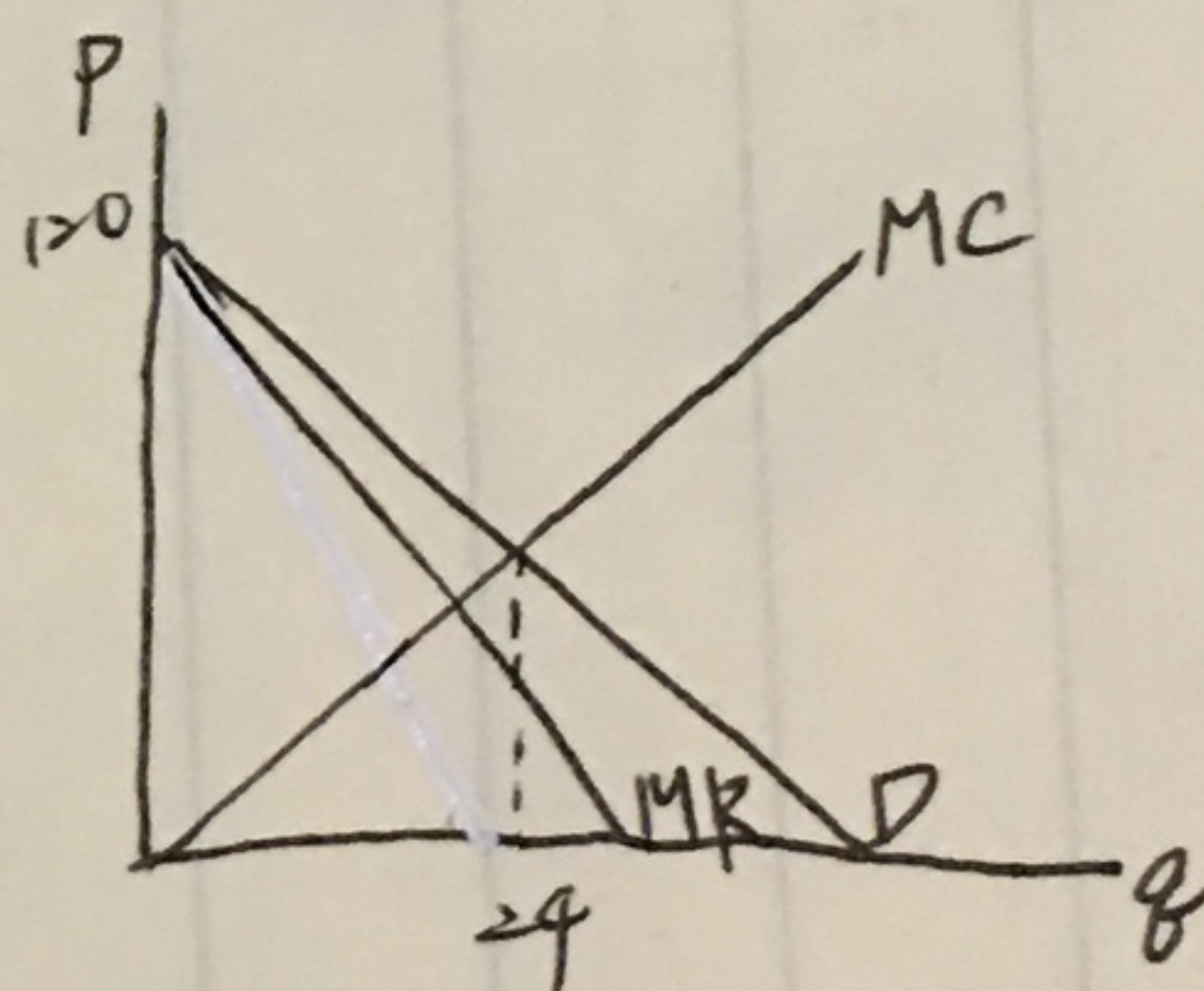
(C) 以 MC 訂價, p^*, q^*, π^*, DWL

$$P = MC \text{ [完競]}$$

$$120 - q = 4q \Rightarrow q^* = 24$$

$$p^* = 96 \text{ \#}$$

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



$$DWL = 0 \text{ \#}$$

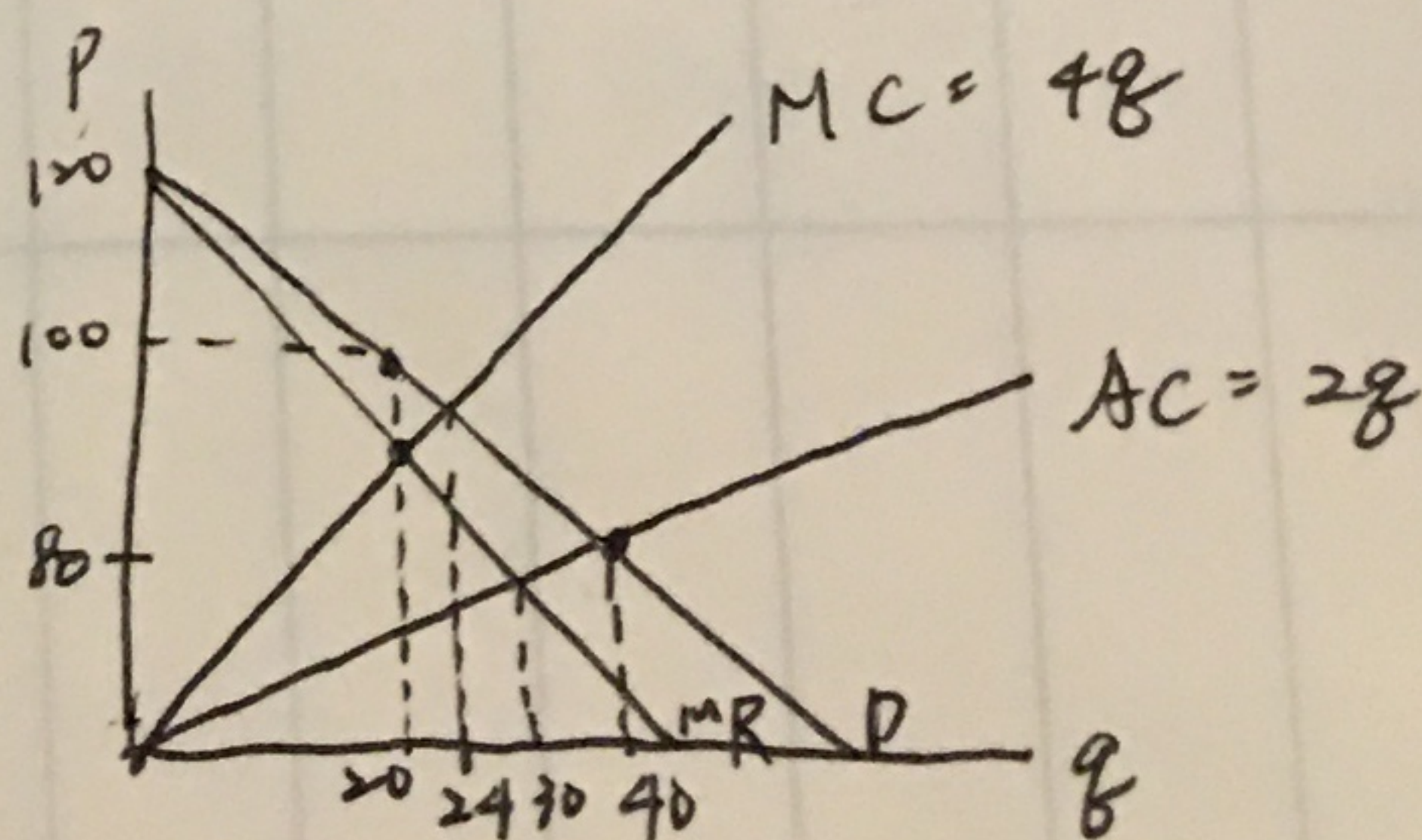
(D) 以 AC 訂價, p^*, q^*, π^*, DWL

$$P = AC$$

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

$$p^* = 80 \text{ \#}$$

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



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