

(ump-sum purchase)

Include all costs to purchase the asset and get it ready for intended use
Allocate the basket purchase price based on relative f

例 1 $Q^d = 2000 - 10P$ $h = 40$
 $STC = q^2 + 50q + 100$

(1) 廠商短期供給曲線 # $P > AVC$ 的 MC 曲線

$$P = MC = 2q_1 + 50$$

$$AVC = q_1 + 50$$

$P > AVC$ $2q_1 + 50 > q_1 + 50$ (恒成立) $\rightarrow P = 2q_1 + 50$
 $q_1 = \frac{P}{2} - 25$

(2) 市場供給曲線 # 個別水平加總

$$Q = \sum q_1$$

$$= 40 \left(\frac{P}{2} - 25 \right) = 20P - 1000 \#$$

(3) 市場均衡, 價格, 數量

$$\# S = P$$

$$20P - 1000 = 2000 - 10P$$

$$P^* = 100, Q^* = 1000 \#$$

(4) 廠商最適產量, 利潤

$$q_1 = \frac{P}{2} - 25 = \frac{100}{2} - 25 = 25$$

$$TV = TR - TC$$

$$= 100 \cdot 25 - (25^2 + 50 \times 25 + 100)$$

$$= 525$$

延伸 1. $Q^d = 3500 - 10P$, $STC = q^2 + 50q_1 + 100$, $h = 40$

(1) $MC = 2q_1 + 50 = P$

$$AVC = q_1 + 50$$

$$q_1 = \frac{P}{2} - 25 \#$$

(3) $20P - 1000 = 3500 - 10P$

$$P^* = 150, Q^* = 2000 \#$$

(2) $Q = \sum q_1$

$$= 20P - 1000 \#$$

(4) $q_1 = \frac{P}{2} - 25$

$$= \frac{150}{2} - 25 = 50 \#$$

$$TV = 150 \cdot 50 - (50^2 + 50 \cdot 50 + 100)$$

$$= 2400 \#$$

延伸

$$Q^d = 200 - 10P, H = 40$$

$$STC = q_1^2 + 80q_1 + 1300$$

$$(1) MC = 2q_1 + 80 \Rightarrow$$

$$AUC = q_1 + 80$$

$$q_1 = \frac{P}{2} - 40 \#$$

$$(2) Q = \sum q_1$$

$$= 40 \left(\frac{P}{2} - 40 \right)$$

$$= 20P - 1600 \#$$

$$(3) 20P - 1600 = 2000 - 10P$$

$$P^* = 120, Q^* = 800 \#$$

$$(4) q_1 = \frac{P}{2} - 40$$

$$= \frac{120}{2} - 40 = 20 \#$$

$$\pi = 120(20) - (20^2 + 80 \cdot 20 + 1300)$$

$$= 10 \#$$