

$$P) MRA = MC = 100 - 2q_A = 20 \Rightarrow q_A = 40 \Rightarrow P_A = 60$$

$$MRB = MC = 80 - 2q_B = 20 \Rightarrow q_B = 30 \Rightarrow P_B = 50$$

$$\begin{cases} q_A = q_B + p \\ q_A = 100 - 2p \\ q_B = 80 - p \end{cases} \Rightarrow \begin{cases} q_A = 100 - p \\ q_B = 80 - p \end{cases}$$

$$C) F = (80, p) \times \frac{q}{2} = (80-p)(80-p)/2 = (80-p)^2/2$$

$$CS = CS_A + CS_B$$

$$\Delta = \frac{1}{2} Q^* (P - P^*)$$

$$CS_A = \frac{1}{2} (100 - 55) \times 5$$

$$+ CS_B = \frac{1}{2} (80 - 55) \times 25$$

$$CS = 1012.5 + 375 = 1387.5$$

$$SW = PS + CS = 1387.5 + 2450 = 3837.5$$

$$\pi_C = 2F + (P - \pi) (q_A + q_B) = (80 - p)^2 +$$

$$(P - \pi) (180 - 2p) = -P^2 + 60p + 2800$$

$$\text{由 } -P^2 \text{ 備件得 } P = 30 \quad F = 1250$$

$$q_A = 10 \quad q_B = 80 \quad \pi = 3700$$

$$CS = CS_A - \frac{1}{2} (100 - 30) (10 - \frac{1}{2} (80 - 30)) \times 50$$

$$SW = \pi_C + CS^* = 4900$$

$$CS^* = CS - 2F = 3700 - 250 = 3450$$