3 假設三大九樂園為台灣唯一樂園，有A.B2類消費群

需求函數分別為：$P_A = 100 - q_A$，$P_B = 80 - q_B$

成本函數 $= TC = 20q$

(A) $MR_A = 100 - 2q_A$

$MR_B = 80 - 4q_B$

$MC = 20$

$TV = 60 \times 40 + 50 \times 30 - 20(40+30) = 2500 = PS$

$TS = 1250 + 2500 = 3750$

$CS = CS_A + CS_B = 800 + 450 = 1250$

$TV^* = 55 \times 70 - 20 \times 70 = 2450$

$CS_A = 1012.5$

$CS_B = 312.5$

(B) $Q = q_A + q_B = 180 - 2P$

$\begin{cases} P = 100 - q_A \\ P = 80 - q_B \end{cases}$

$\pi = TR - TC$

$= P(Q)Q - T(Q)$

$= 190 - 0.5Q - 20Q$

$Q^* = 70 \quad P^* = 55$

(C) $F = (80 - P) \times \frac{80 - P}{2}$

$TS = 1200 + 3700 = 4900$

$CS = CS_A + CS_B - 2F$

$TV = 2F + (P - 20)(q_A + q_B) = -P^2 + 60P + 2800$

$P = 30 \quad F = 1250 \quad q = 120 \quad TV = 3700 = 1200$