4. (A) $MR = 100 - 2q = 20 = MC \Rightarrow q = 40$ $p = 60$ $ML = \frac{60-20}{60} = \frac{2}{3}$

$\pi = (40 \times 60) - (30 + 20 \times 40) = 1570$

(B) $\frac{1}{2} \times 40 \times 40 = 800$ (C) $(60-20)/60 = \frac{2}{3}$

(D) $MR = MC + 10$

$100 - 2q = 30$ $q = 35$ $p = 65$

$\pi = (35 \times 65) - (30 + 20 \times 35) - 10 \times 35 = 1195$

(E) $(1-10\%)MR = MC$ $0.9(100 - 2q) = 20$ $q = \frac{50}{9}$ $p = 350$

(F) $1570 - 1000 = 570$

(G) $\frac{2}{3} \times 1570 = 1256$

(H) $(80 \times 20) - (30 + 20 \times 80) = -30 \Rightarrow$ 0 (會最損失)

5. $MR = P\left[1 - \frac{1}{E_d}\right]$

$= AMC\left[1 - \frac{1}{E_d}\right]$ $E_d = \frac{4}{3}$

6. $P = a - bq$ $MR = a - 2bq$

$MR = MC + t \Leftrightarrow a - 2kq = k + t$ $q = \frac{a-(k+t)}{2b}$

$P = \frac{a+k+t}{2}$ $P_0 = \frac{a+k}{2}$ $P^* - P_0 = \Delta P = \frac{t}{2}$

7. $MC_A = MC_B = MR$

$4q_A = 8q_B = 280 - 2q_A - 2q_B$ $q_A = 40$ $q_B = 20$ $P = 220$