

WEEK2 作業

個人作業 week 2

k	L	Q	AP _L	AP _k	MP _L
20	0	0	0	0	4
20	5	20	4	1	0.3
20	10	43	4.3	2.15	-0.5
20	15	57	3.8	2.85	-0.45
20	20	67	3.35	3.35	-0.35
20	25	75	3	3.75	

$25 \times 3 = 75 = L \cdot AP_L = Q$

2. $Q = 2L + 9L^2 - L^3$
 $21 + 18L - 3L^2$

① $\Rightarrow \frac{MP_L}{dL} = 18 = 6L \quad L=3$ 大於 $L=3$, MP 開始下降

② 7 TP 的頂點, $MP_L = 0 = 21 + 18L - 3L^2$
 \Rightarrow TP 斜率 = 0, $L=7$, $L=7$ 時 TP 最大

③ $\Rightarrow \frac{AP_L}{dL} = 9 - 2L = 0, L=4.5$ 且 AP 斜率 = 0

3. $L: 10 \quad k: 5$
 $Q = 5 \cdot 10 + 10 \cdot 5 = 500 \Rightarrow 4$

資本邊際產量 (MP_k) = $B = 90$

4. a. $Q = 5A + 10B$
 b. $Q = \min[L/2, k/1]$