

例 $q = 21L + 9L^2 - L^3$

(1) $MP_L = -3L^2 + 18L + 21 \cdot (\frac{1}{L})$

$\frac{dMP_L}{dL} = 18 - 6L = 0, 6L = 18, L = 3$

大於3開始遞減

(2) 令 $MP_L = 0$, $0 = -3L^2 + 18L + 21$
 $0 = -L^2 + 6L + 7$
 $0 = (L-1)(L+7)$
 $L = 1 \text{ or } -7$
 $L = 1$

(3) $AP_L = 21 + 9L - L^2$

$\frac{dAP_L}{dL} = 9 - 2L = 0 \rightarrow L = 4.5$

(5)

(A) $q = 5A + 10B$

(B) $q = \min\{L/2, K\}$

(A) 完全替代 (線性)