

Week3 個經作業

Week 3 個經作業

5. (a) $\Rightarrow \frac{MP_L}{MP_K} = |MRTS| \Rightarrow \frac{0.5L^{\frac{1}{2}} + \frac{1}{2}L^{-\frac{1}{2}}K^{\frac{1}{2}}}{\frac{1}{2} \cdot K^{-\frac{1}{2}}L^{\frac{1}{2}} + K^{\frac{1}{2}} \cdot 0} = \frac{K}{L}$

5. $\frac{d \ln(k/L)}{d \ln MRTS} = \frac{d \ln(k/L)}{d \ln(k/L)} = 1$ ✗

b) $\Rightarrow \frac{MP_L}{MP_K} = |MRTS| = \frac{1}{2}$ $\Rightarrow \frac{d \ln(k/L)}{d \ln MRTS} \cdot \frac{d \ln(k/L)}{d \ln(\frac{1}{2})} = \infty$ ✗

8. (1) $\Rightarrow Q(hk, hL) = hQ \Rightarrow 3(hk) + 2(hL) = hQ \Rightarrow h(3k + 2L)$

2) $MP_L = 2$ (不合) $\Rightarrow MP_K = 3$ (1)(3) 全正確

3) $\Rightarrow \frac{MP_L}{MP_K} = \frac{2}{3}$ 合理

9. (a) $\Rightarrow (hLhk) \cdot [(hL)^\alpha + (hk)^\alpha]^\beta = [h^\alpha(L^\alpha + k^\alpha)]^\beta \Rightarrow$ 為規模
 遞增

(b) 為規模報酬固定

(c) 為規模報酬遞減