生產者均衡于角解
內部角解

$C = wL + rK$

Week 4

隨 1. 生產函數 $q = 10L^{0.5}K^{0.5}$，且 $w = r = 10$

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(A) 等成本線 $C = 10L + 10K$

(B) $MRTS_{LK} = \frac{10 \cdot \frac{1}{2} L^{-\frac{1}{2}} K^{\frac{1}{2}}}{10 \cdot \frac{1}{2} L^{\frac{1}{2}} K^{-\frac{1}{2}}} = \frac{K}{L}$

(C) L↑, K少時, $MRTS_{LK}$ 下降，故等產量曲線凸向原點

$\frac{d(\frac{K}{L})}{dL} = -\frac{K}{L^2}$

(D) $\begin{cases} \frac{K}{L} = \frac{10}{10} \\ q = 10L^{0.5}K^{0.5} \end{cases} \Rightarrow q = 10L^{0.5}L^{0.5} \Rightarrow \begin{cases} L^* = 0.1q \\ K^* = 0.1q \end{cases}$

$q = 10L$

$\Rightarrow q = 10K$

(E) $LTC = wL + rK$

$= 10 \cdot 0.1q + 10 \cdot 0.1q$

$= 2q$ #

$AC = MC = 2$ #

(F) $TC(10) = 2 \times 10 = 20$