

成本
隨 $q = 10L^{\frac{1}{2}}K^{\frac{1}{2}}$, $w = r = 10$

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(A) 等成本線

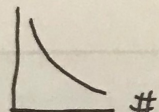
$$\begin{aligned}\bar{C} &= wL + rK \\ &= 10L + 10K \# \end{aligned}$$

(B) $MRTS_{LK}$

$$\begin{aligned}|MRTS| &= \frac{MP_L}{MP_K} \\ &= \frac{5L^{-\frac{1}{2}}K^{\frac{1}{2}}}{5L^{\frac{1}{2}}K^{-\frac{1}{2}}} = \frac{K}{L} \# \end{aligned}$$

(C) 等產量線方向

隨 $L \uparrow$, $K \downarrow$, $MRTS \downarrow$

故凸向原點  #

(D) 條件要素需求函數

$$\begin{cases} \frac{MP_L}{MP_K} = \frac{K}{L} = 1 \\ q = 10L^{\frac{1}{2}}K^{\frac{1}{2}} \end{cases} \Rightarrow L^* = K^* = 0.18 \#$$

(E) TC, AC, MC

$$TC = 2q \#$$

$$AC = 2 \#$$

$$MC = 2 \#$$

(F) 產 10 單位, 最低 cost

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