

②

生產函數	$q = 10L^{0.5}K^{0.5}$	$q = 2L + K$	$q = \min(2L, K)$	$q = \max(2L, K)$
TC函數	$0.2q$	$0.5q$	$1.5q$	$0.5q$
AC函數	$0.2$	$0.5$	$1.5$	$0.5$
MC函數	$0.2$	$0.5$	$1.5$	$0.5$

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(A)  $q = \frac{L}{2} = \frac{K}{4}, L^* = 2q, K^* = 4q \Rightarrow C = 1 \times 2q + 2 \times 4q = 10q$

生產成本(TC) = 生產成本 + 權利金成本  $TC_A = 10q + 40$

$q = \frac{L}{4} = \frac{K}{2} \Rightarrow L^* = 4q, K^* = 2q \Rightarrow C = 1 \times 4q + 2 \times 2q = 8q$

$TC_B = 8q + 100$

(B)  $q = 20, TC_A = 240, TC_B = 260 \Rightarrow$  應 buy A 技術

(C)  $q = 40, TC_A = 440, TC_B = 420 \Rightarrow$  應 buy B 技術

(D) 令  $TC_A < TC_B, q < 30$  即產量低於 30 單位, 應 buy A 技術