

No.

Date

4.  $q = 10L^{0.5}K^{0.5}$ , 且  $w=r=10$ . 但設  $K$  固定  $K_0$ .

(A) 求短期成本, 變動成本, 邊際成本函數.

 $TC$  $MC = 2$ 

$$|MRTS| = \frac{MP_L}{MP_K} = \frac{w}{r} = 1.$$

$$\Rightarrow L^* = K^* = 0.1q$$

$$q = 10L^{0.5}K^{0.5} = 10 \cdot (100)^{0.5} = 100.$$

$$TC = rK^* + wL^*$$

$$= 10 \cdot 0.1q + 10 \cdot 0.1q = 2q.$$

$$MC = 2$$

HW

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1. 短期成本函数  $TC = q^3 - 12q^2 + q + 50$ , 且短期下的變動要素為勞動

(A)  $q = 10$  之 AFC.

$$AFC = \frac{FC}{q} = \frac{50}{10} = 5$$

(B) 產量多少時,  $AVC = MC$

$$AVC = q^2 - 12q + 1$$

$$\rightarrow dAVC/dq = 2q - 12 = 0, q = 6$$

(C) 產量超過多少時, APL start 遞減