week 5

(A) $TC_A = $ 生产成本 + 相关什么成本

$q \cdot \frac{1}{k} = \frac{k}{L} \Rightarrow L = 2q$

$\quad\quad\quad\quad\quad\quad k = 4q$

$TC = 10q + 40$

$TC_\beta = 1 \times 4q + 2 \times 2q + 100 = 8q + 100$

(b) = $q = 20$, $TC_A = 240$, $TC_\beta = 260 \Rightarrow$ Ⓐ

(c) $q = 40$, $TC_A = 440$, $TC_\beta = 420 \Rightarrow$ Ⓑ

(D) $8q + 100 > 10q + 40$

4. (A) $q = 10 L^{0.5} K^{0.5} \Rightarrow L^* = \frac{q^2}{100k}$

$STC = 10 L^* + 10K \Rightarrow \left(\frac{q}{10k}\right) + 10K$

$AC = \frac{q}{10k} + \frac{10k}{q}$

$MC = \frac{q}{5k}$

(B) $\frac{\Delta ST}{\Delta K} = \frac{-q^2}{10k^2} + 10 = 0 \Rightarrow k = \frac{q}{10}$

$\Rightarrow TC = STC \,(K = \hat{K}) = \frac{-q^2}{10/10} + 10 \frac{q}{10} = 2q$