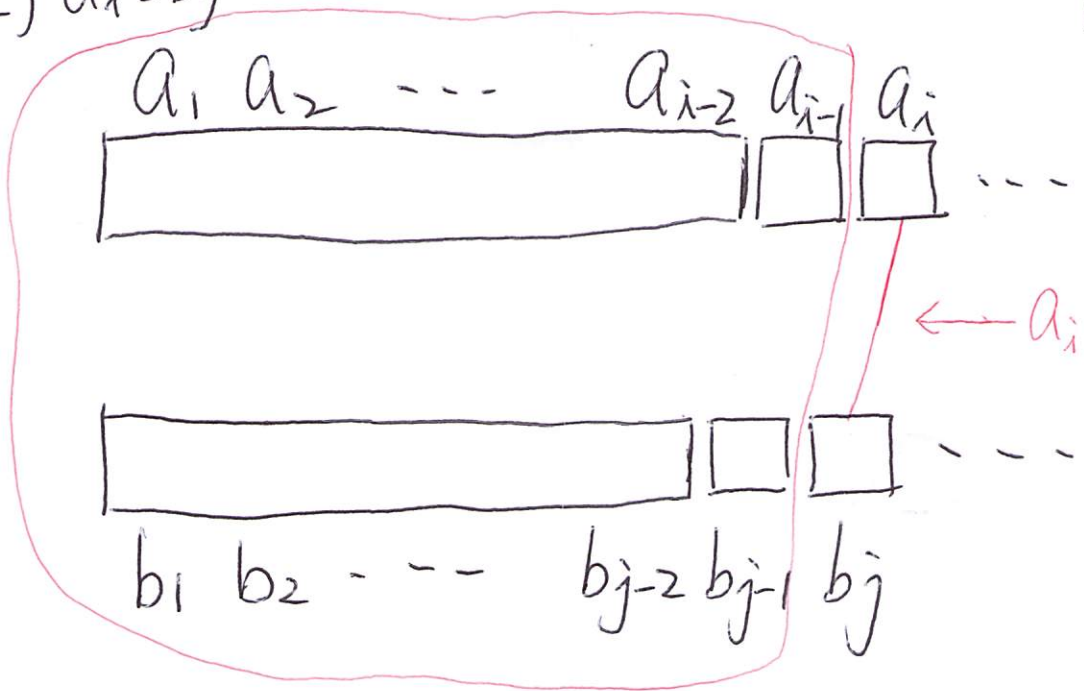


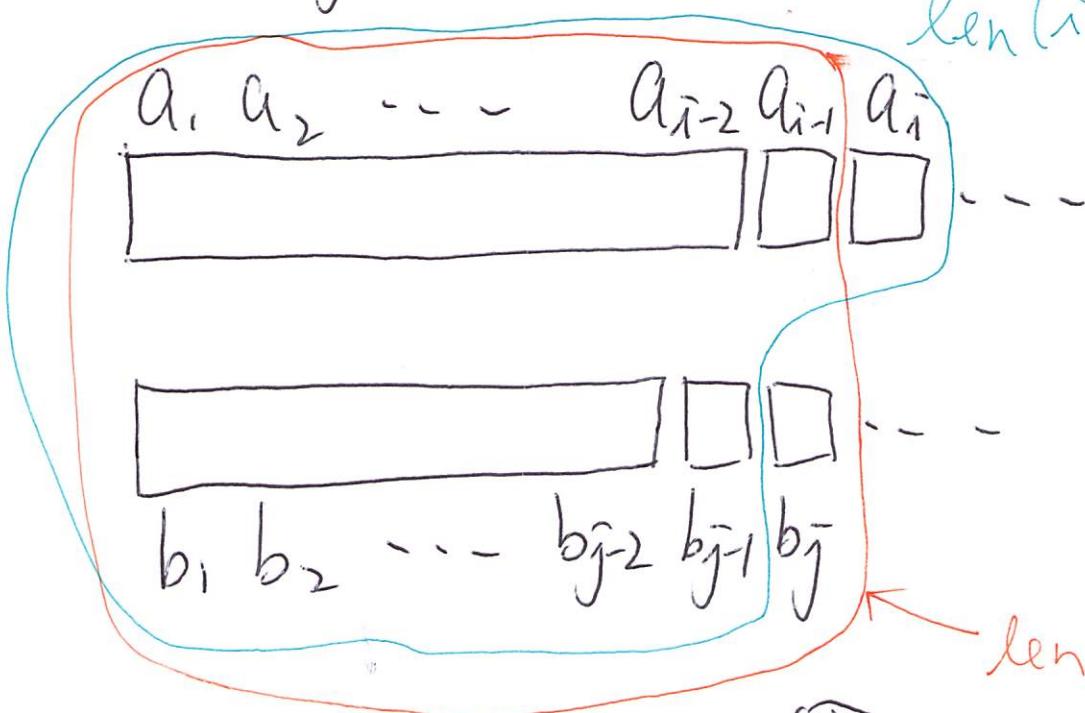
(I) $a_i = b_j$



$len(i-1, j-1)$

$len(i, j)$
 $= len(i-1, j-1) + 1$

(II) $a_i \neq b_j$



$len(i, j-1)$

$len(i-1, j)$

$len(i, j) = \max \begin{cases} len(i, j-1) \\ len(i-1, j) \end{cases}$

Kun-Mao Chao

Oct. 3, 2017

a_1 a_2 a_3 a_4 a_5 a_6 a_7 a_8 a_9

P R E S I D E N T

P R O V I D E N C E

b_1 b_2 b_3 b_4 b_5 b_6 b_7 b_8 b_9 b_{10}

a_5 b_5
↓ ↓

2
||

$$\text{len}(5,5) = \text{len}(4,4) + 1 = 3$$

$$\text{len}(5,6) = \max \left\{ \begin{array}{l} \text{len}(5,5) \\ \text{len}(4,6) \end{array} \right\} = 3$$

a_5 b_6 b_5 b_6