

		j	→	1	2	3	4
			y <sub>j</sub>	A	B	C	D
i	↓	x <sub>i</sub>	0	0	0	0	0
1	<b>B</b>	0	0↑	1↖	1↖	1←	1←
2	<b>D</b>	0	0↑	1↑	1↑	1↑	2↖
3	<b>C</b>	0	0↑	1↑	2↖	2↑	2↑
4	<b>B</b>	0	0↑	1↖	2↑	2↑	2↑
5	<b>A</b>	0	1↖	1↑	2↑	2↑	2↑
6	<b>D</b>	0	1↑	1↑	2↑	3↖	3↖

$$c[i, j] = \begin{cases} 0 & i = 0 \text{ or } j = 0 \\ c[i-1, j-1] + 1 & i, j > 0 \text{ and } x_i = y_j \\ \max(c[i, j-1], c[i-1, j]) & i, j > 0 \text{ and } x_i \neq y_j \end{cases}$$

$$x_i = y_j \Rightarrow c[i, j] = c[i-1, j-1] + 1 \quad \swarrow$$

$$x_i \neq y_j \Rightarrow c[i-1, j] \geq c[i, j-1] \quad \uparrow$$

$$c[i, j] = c[i-1, j]$$

$$c[i-1, j] < c[i, j-1] \quad \leftarrow$$

$$c[i, j] = c[i, j-1]$$

{B, C, D}