

LCS-LENGTH(X, Y, m, n)

let $b[1..m, 1..n]$ and $c[0..m, 0..n]$ be new tables

for $i = 1$ **to** m

$c[i, 0] = 0$

for $j = 0$ **to** n

$c[0, j] = 0$

for $i = 1$ **to** m

for $j = 1$ **to** n

if $x_i == y_j$

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

$b[i, j] = \text{“}\nearrow\text{”}$

else if $c[i - 1, j] \geq c[i, j - 1]$

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

$b[i, j] = \text{“}\uparrow\text{”}$

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

$b[i, j] = \text{“}\leftarrow\text{”}$

return c and b