Dynamic programming algorithm

LCS\_length(X, Y)

m 🡨 length[X]

n 🡨 length[Y]

FOR i 🡨 1 to max

DO c[i, 0] 🡨 0

FOR j 🡨 0 to n

DO c[0, j] 🡨 0

FOR i 🡨 1 to max

DO FOR j 🡨 1 to n

DO if X[i] = Y[j]

THEN c[i, j] 🡨 c[i-1, j-1] + 1

b[i, j] 🡨 ""

ELSE IF c[i-1, j] >= c[i, j-1]

THEN c[i, j] 🡨 c[i-1, j]

b[i, j] 🡨 ""

ELSE c[i, j] 🡨 c[i, j-1]

b[i, j] 🡨 ""

RETURN c and b