

COUNTING-SORT(A, B, n, k)

let $C[0..k]$ be a new array

for $i = 0$ **to** k

$C[i] = 0$

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

$C[A[j]] = C[A[j]] + 1$

for $i = 1$ **to** k

$C[i] = C[i] + C[i - 1]$

for $j = n$ **downto** 1

$B[C[A[j]]] = A[j]$

$C[A[j]] = C[A[j]] - 1$