COUNTING-SORT(A, n, k)

1   let $B[1:n]$ and $C[0:k]$ be new arrays
2   **for** $i = 0$ **to** k
3       $C[i] = 0$
4   **for** $j = 1$ **to** n
5       $C[A[j]] = C[A[j]] + 1$
6   // $C[i]$ now contains the number of elements equal to i.
7   **for** $i = 1$ **to** k
8       $C[i] = C[i] + C[i-1]$
9   // $C[i]$ now contains the number of elements less than or equal to i.
10 // Copy A to B, starting from the end of A.
11 **for** $j = n$ **downto** 1
12      $B[C[A[j]]] = A[j]$
13      $C[A[j]] = C[A[j]] - 1$ // to handle duplicate values
14 **return** B