Counting Sort Algorithm

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

Radix Sort Algorithm

RADIX-SORT(A, d)

for $i = 1$ **to** d
    use a stable sort to sort array A on digit i