

```

function CountingSort(input, k)
  count ← array of k+1 zeros
  output ← array of same length as input

  for i = 0 to length(input) - 1 do
    j = key(input[i])
    count[j] += 1
  结束 for

  for i = 1 to k do
    count[i] += count[i-1]
  结束 for

  for i = length(input) - 1 downto 0 do
    j = key(input[i])
    count[j] -= 1
    output[count[j]] = input[i]
  结束 for

  return output

```