Counting sord :

```
for i ← 1 to k                          ⟶ 1+n+(n-1)
  do c[i] ← 0                           ⟶ n
for j ← 1 to n                          ⟶ 1+n+(n-1)
  do c[A[j]] ← c[A[j]]+1                ⟶ n+n
for i ← 2 to k                          ⟶ 1+n+(n-1)
  do c[i] ← c[i]+c[i-1]                 ⟶ 3n
for j ← n dowon + 1
  do B[c[A[j]]] ← A[j]                  ⟶ 1+n+(n-1)
  c[A[j]] ← c[A[j]]-1]-1                ⟶ n+n
```

$T(n) = 1+n+n-1+n+1+n+n-1+2n$ ** $+2n+3n+2n+2r$

$= 16n$

$T(n) = 15 \quad n>0 \quad g(n) = n$

So $T(n)$ is $O(n)$