

v: vector a ordenar, w: vector resultado; índice 0 não usado

```
-----  
u=9 n=8  
v=[0,8,9,2,2,9,9,8,1] c=[0]*(u+1) w=[0]*(n+1)
```

```
print "v:",v[1:]  
for i in range(1,u+1):  
    c[i] = 0  
for i in range(1,n+1):  
    c[v[i]] = c[v[i]]+1  
print "c:",c[1:]
```

```
for i in range(2,u+1):  
    c[i] = c[i]+c[i-1]
```

```
print "c:",c[1:]  
print
```

```
for i in range(n,0,-1):  
    w[c[v[i]]] = v[i]  
    c[v[i]] = c[v[i]] -1  
    print "i:",i  
    print "v:",v[1:]  
    print "w:",w[1:]  
    print "c:",c[1:]  
    print
```

```
-----  
v: [8, 9, 2, 2, 9, 9, 8, 1]  
c: [1, 2, 0, 0, 0, 0, 0, 2, 3]  
c: [1, 3, 3, 3, 3, 3, 3, 5, 8]
```

```
-----  
i: 8  
v: [8, 9, 2, 2, 9, 9, 8, 1]  
w: [1, 0, 0, 0, 0, 0, 0, 0]  
c: [0, 3, 3, 3, 3, 3, 3, 5, 8]
```

```
i: 7  
v: [8, 9, 2, 2, 9, 9, 8, 1]  
w: [1, 0, 0, 0, 8, 0, 0, 0]  
c: [0, 3, 3, 3, 3, 3, 3, 4, 8]
```

```
i: 6  
v: [8, 9, 2, 2, 9, 9, 8, 1]  
w: [1, 0, 0, 0, 8, 0, 0, 9]  
c: [0, 3, 3, 3, 3, 3, 3, 4, 7]
```

```
i: 5  
v: [8, 9, 2, 2, 9, 9, 8, 1]  
w: [1, 0, 0, 0, 8, 0, 9, 9]  
c: [0, 3, 3, 3, 3, 3, 3, 4, 6]
```

```
i: 4  
v: [8, 9, 2, 2, 9, 9, 8, 1]  
w: [1, 0, 2, 0, 8, 0, 9, 9]  
c: [0, 2, 3, 3, 3, 3, 3, 4, 6]
```

```
i: 3  
v: [8, 9, 2, 2, 9, 9, 8, 1]  
w: [1, 2, 2, 0, 8, 0, 9, 9]  
c: [0, 1, 3, 3, 3, 3, 3, 4, 6]
```

```
i: 2  
v: [8, 9, 2, 2, 9, 9, 8, 1]  
w: [1, 2, 2, 0, 8, 9, 9, 9]  
c: [0, 1, 3, 3, 3, 3, 3, 4, 5]
```

```
i: 1  
v: [8, 9, 2, 2, 9, 9, 8, 1]  
w: [1, 2, 2, 8, 8, 9, 9, 9]  
c: [0, 1, 3, 3, 3, 3, 3, 3, 5]
```

