

# Countsort

Apenas quando os valores do vetor **v** variarem em um intervalo pequeno (Ex.: 0 a 100).

```
c = {}  
for i=0, 100 do  
    c[i] = 0  
end  
for i=1, #v do  
    c[ v[i] ] = c[ v[i] ]+1  
end  
j = 1  
for i=0,100 do  
    while c[i]>0 do  
        v[j] = i  
        j = j+1  
        c[i] = c[i]-1  
    end  
end
```



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# Countsort

$V =$ 

3	1	2	1	1	3
---	---	---	---	---	---

# Countsort

V = 

3	1	2	1	1	3
---	---	---	---	---	---

C = 

0	0	0	0
---	---	---	---

0      1      2      3

# Countsort

V =

3	1	2	1	1	3
---	---	---	---	---	---

↑  
i

C =

0	0	0	1
0	1	2	3

# Countsort

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---	---	---	---	---	---

↑  
i

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↑  
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0	2	1	1
0	1	2	3

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↑  
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↑  
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0      1      2      3

↑  
i

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1	1	2	1	1	3
---	---	---	---	---	---

↑<sub>j</sub>

$C =$

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---	---	---	---

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↑<sub>i</sub>

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↑  
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0      1      2      3

↑  
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↑  
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