

Ordenação

(algoritmos **recursivos**)







- Vetor





- Vetor
- Tamanho



- Vetor
- Tamanho
- Tipo



- Vetor
- Tamanho
- Tipo

Comparação



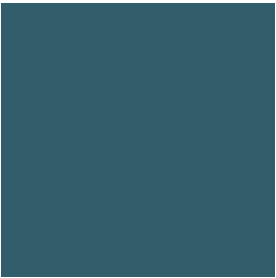
- Vetor
- Tamanho
- Tipo

Comparação



- Vetor
- Tamanho
- Tipo

Comparação









Força bruta
(bolha)



for each i, j

Força bruta
(bolha)



for each i, j
if $v[i] < v[j]$

Força bruta
(bolha)



```
for each i, j  
  if  $v[i] < v[j]$   
    swap( $v[i], v[j]$ )
```

Força bruta
(bolha)



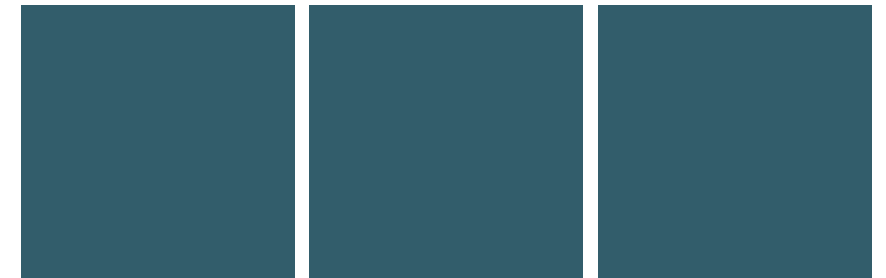
```
for i = 0, ..., n-1  
    idx = max(v, n-i)  
    swap(v[n-i-1], v[idx])
```

(seleção)



```
for i = 0, ..., n-1  
  idx = max(v, n-i)  
  swap(v[n-i-1], v[idx])
```

(seleção)



for $i = 1, \dots, n$
 insert(v, i)

(inserção)



for $i = 1, \dots, n$
 insert(v, i)

(inserção)



for $i = 1, \dots, n$
 insert(v, i)

(inserção)



for $i = 1, \dots, n$
insert(v, i)

(inserção)



for $i = 1, \dots, n$
 insert(v, i)

(inserção)

Ordenação recursiva









merge sort

10	13	6	5	7	12	20	11
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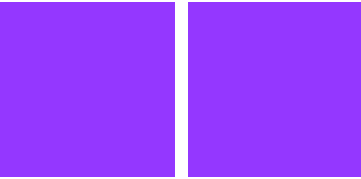
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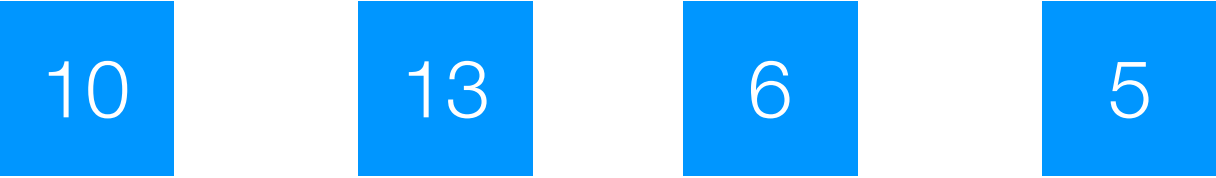
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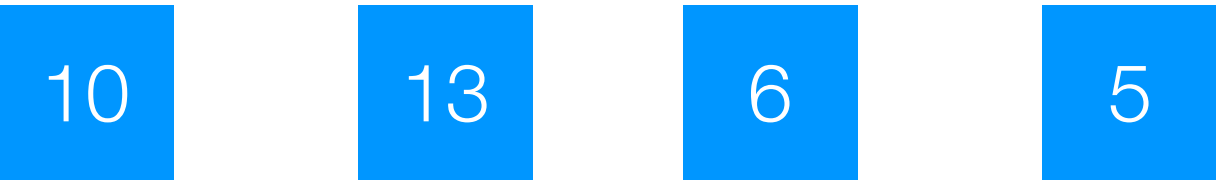
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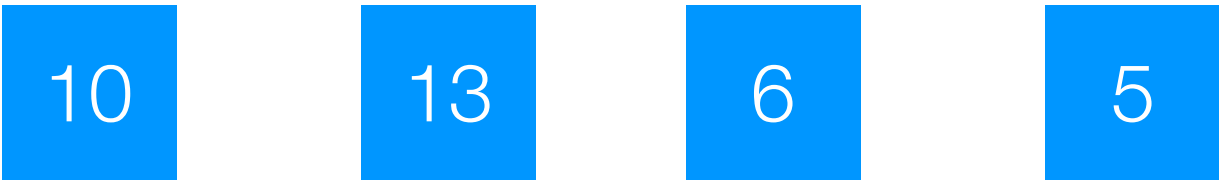
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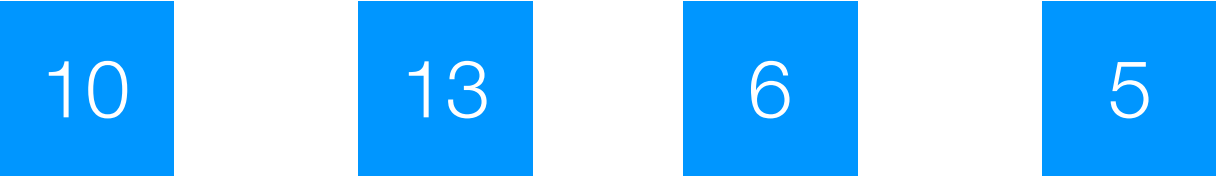
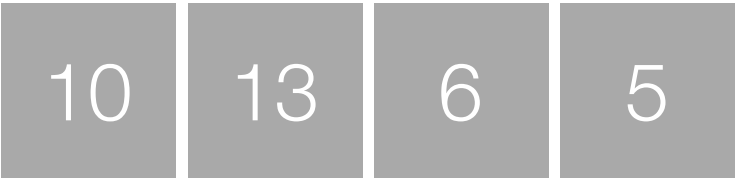
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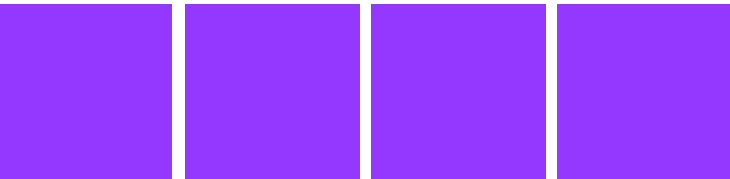
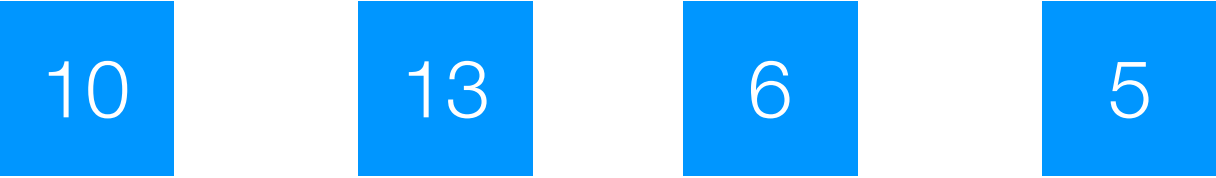
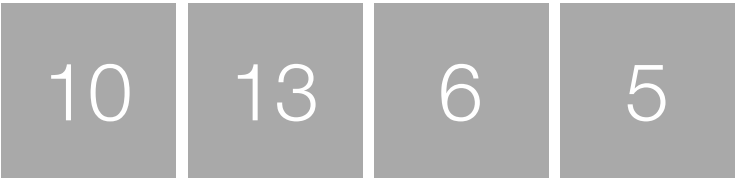
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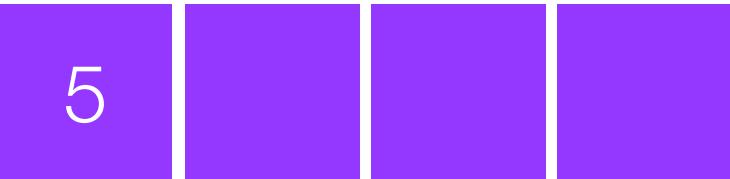
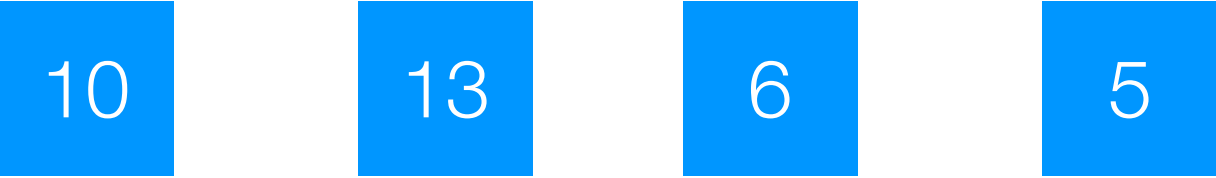
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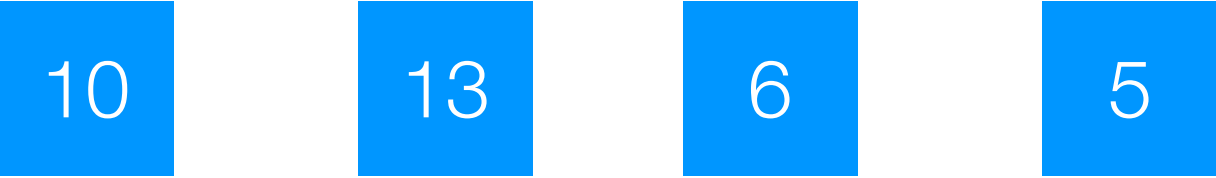
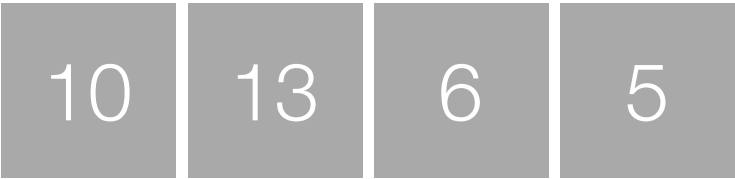
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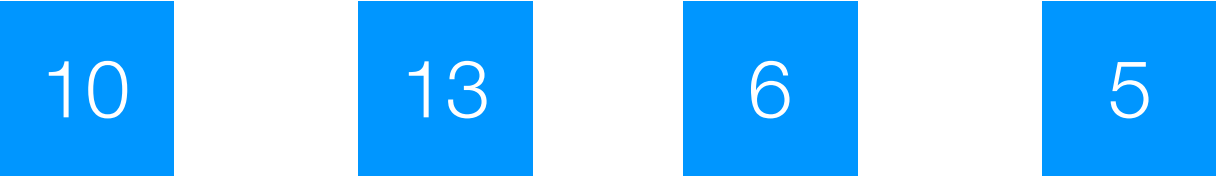
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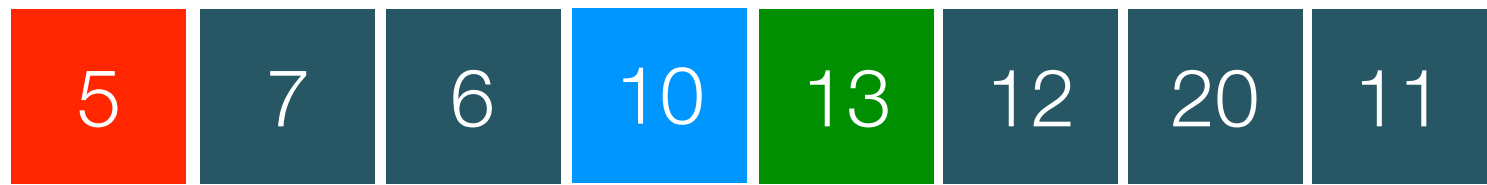


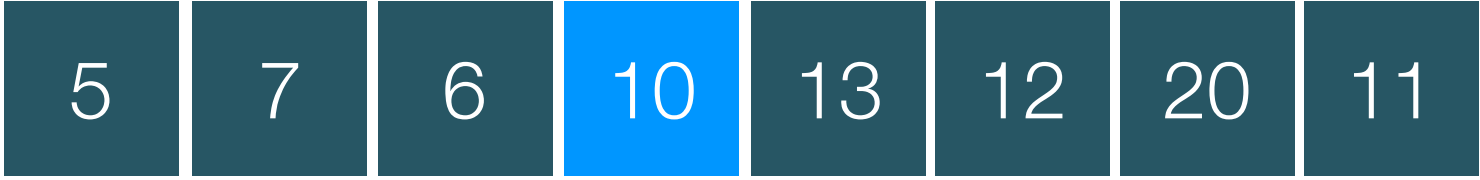


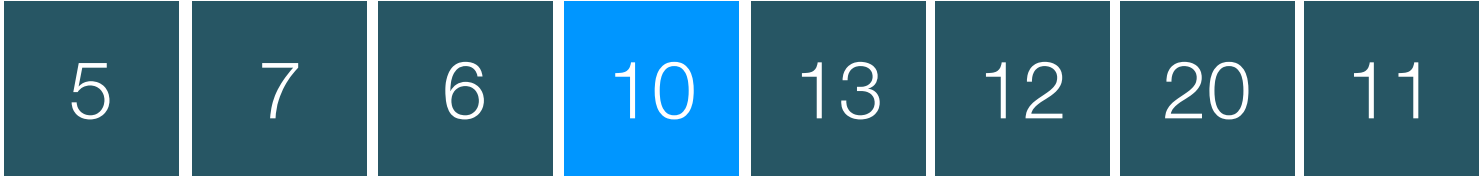


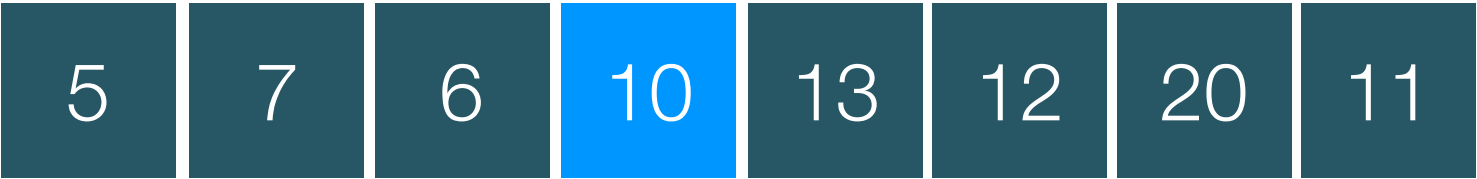
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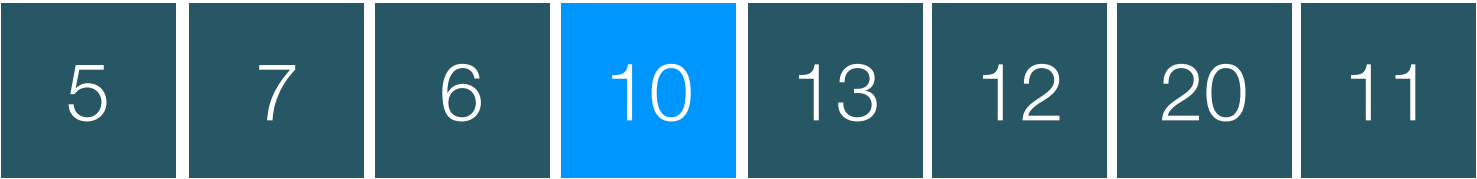


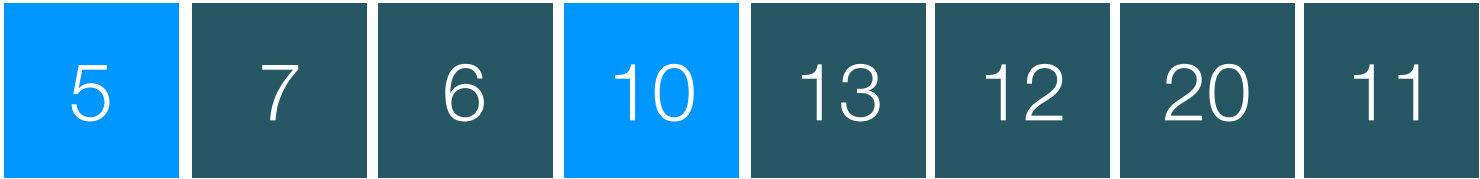


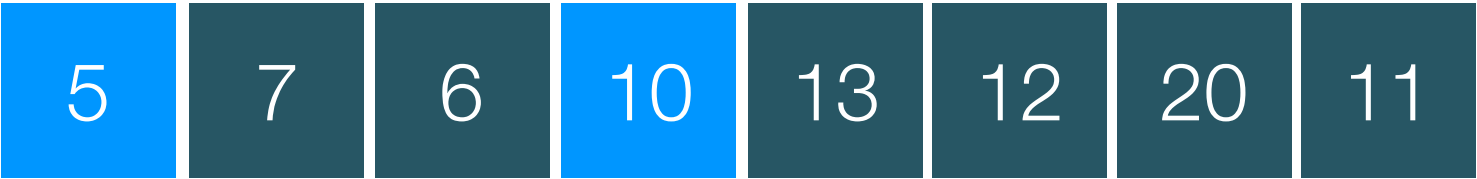


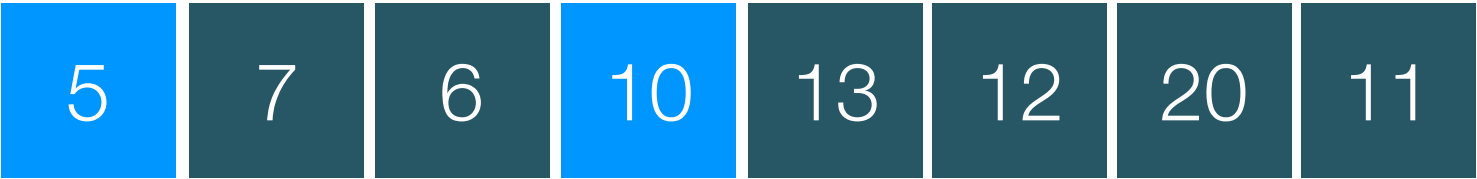


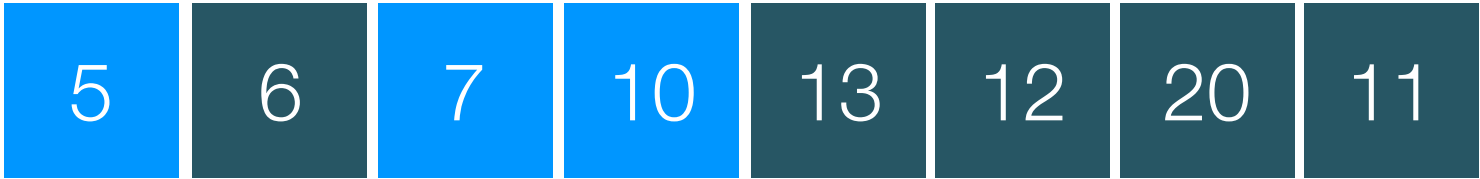


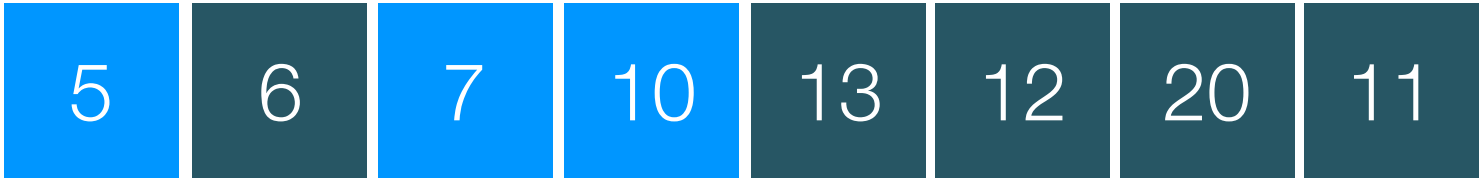


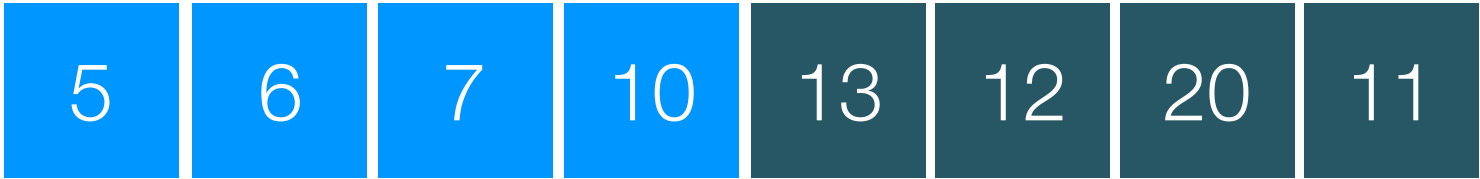


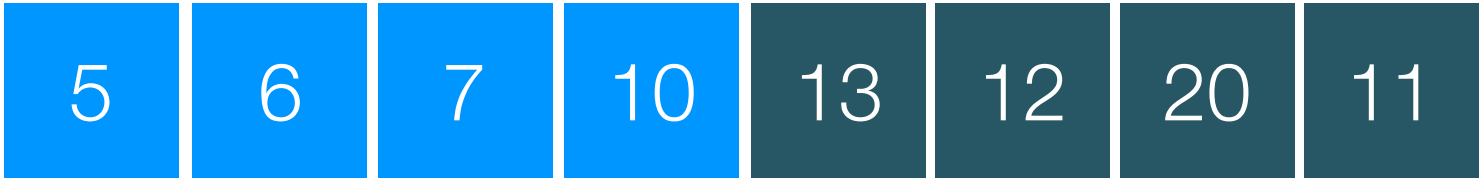


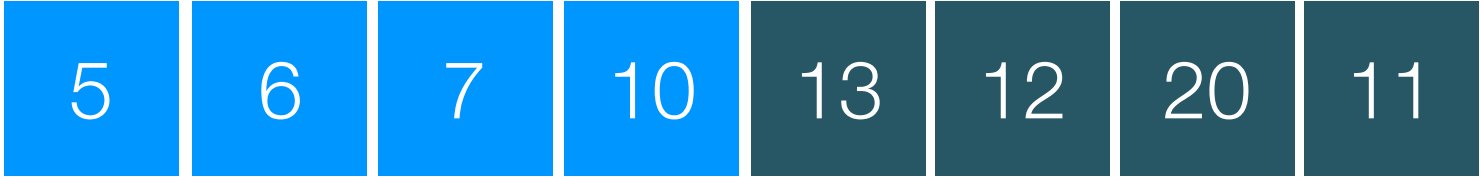


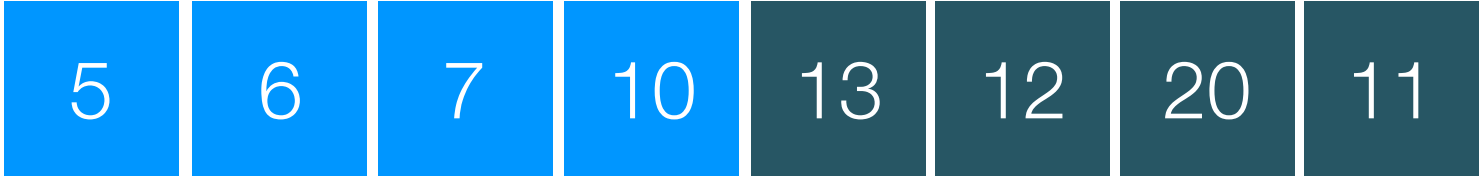


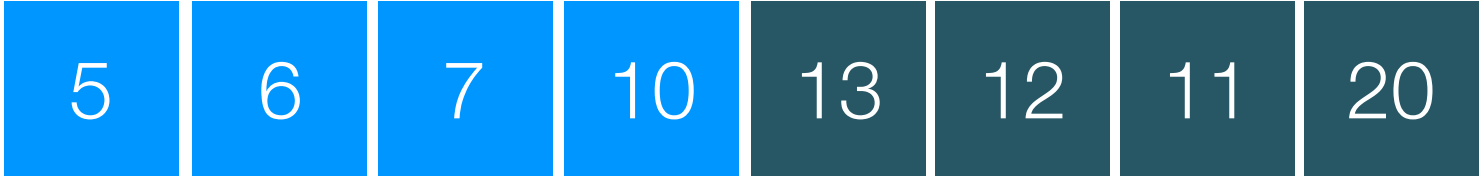


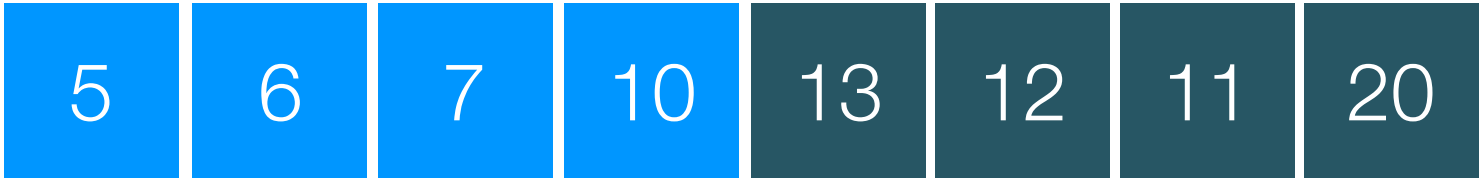


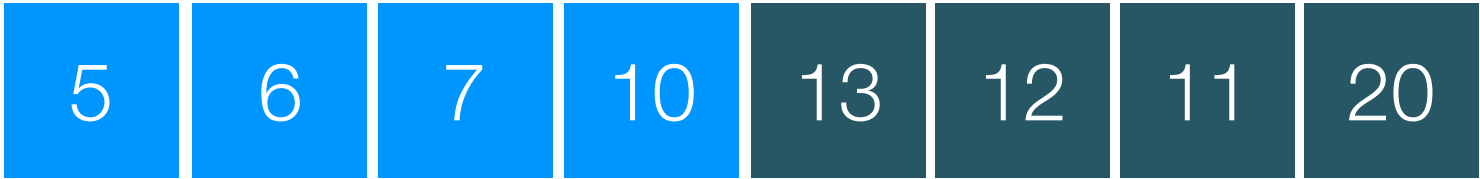


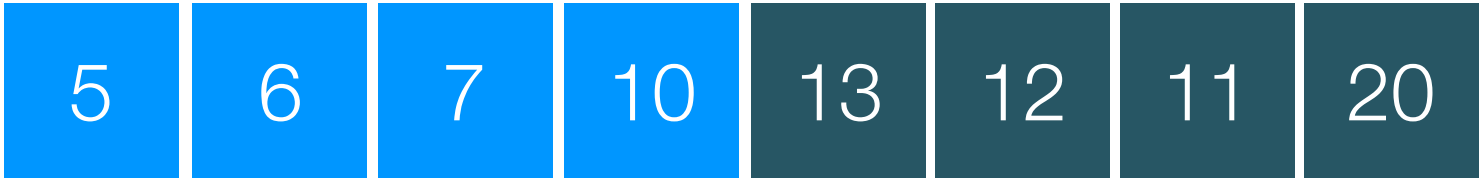


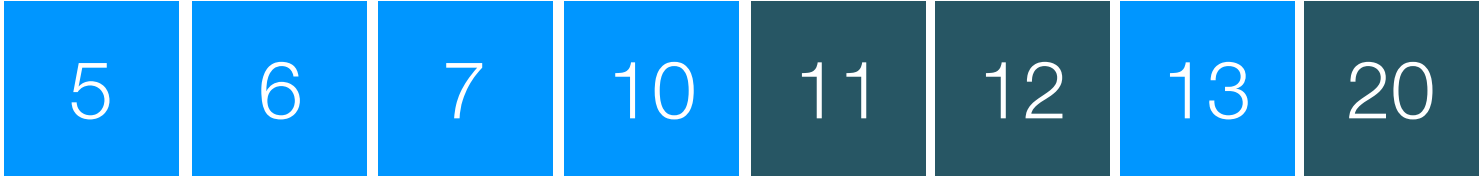


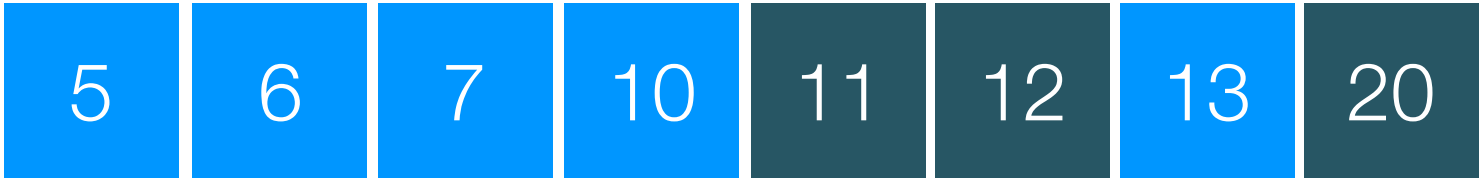


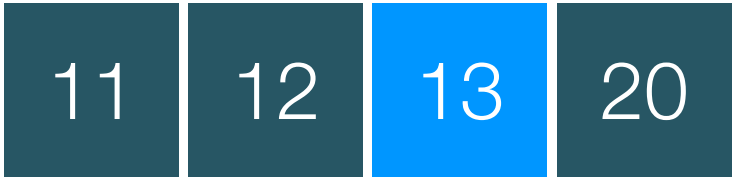
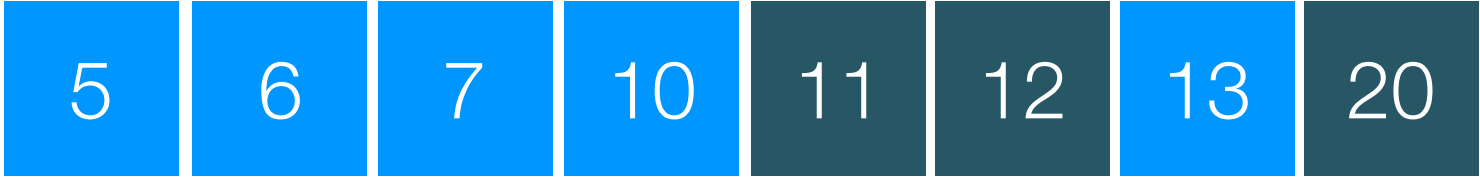


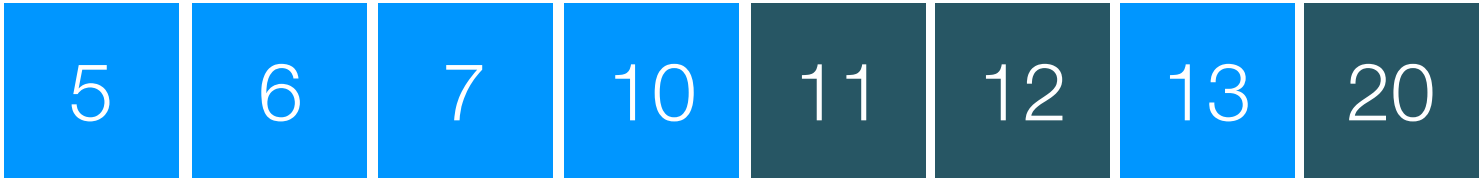


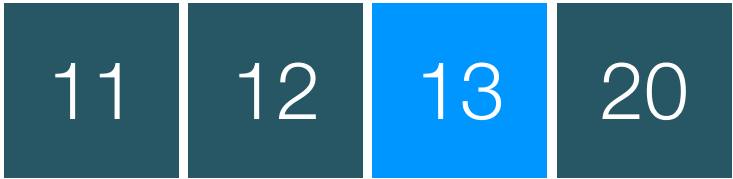
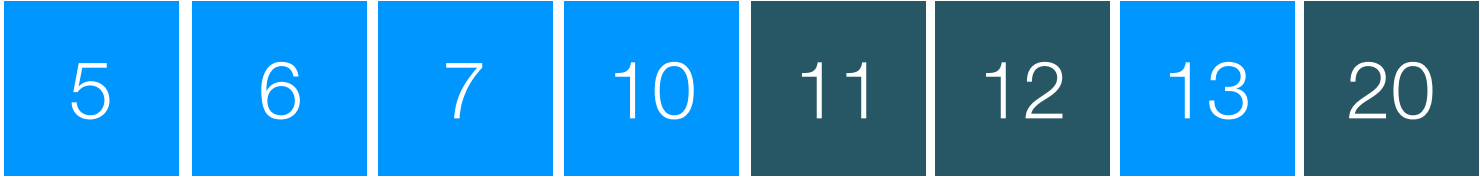


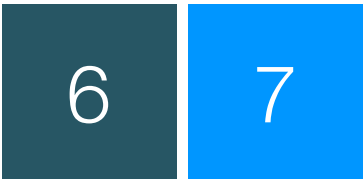












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