



# Ordenação

(algoritmos **recursivos**)





- Vetor
- Tamanho
- Tipo

Comparação





- Vetor
- Tamanho
- Tipo

Comparação



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

Força bruta  
(bolha)



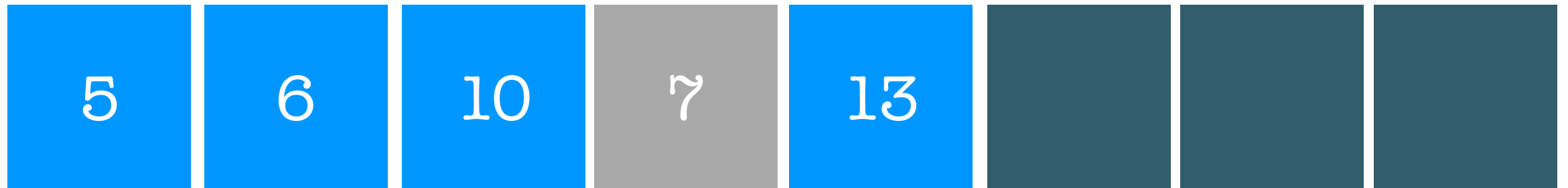
```
for i = 0, ..., n-1  
  idx = max(v, n-i)  
  swap(v[n-i-1], v[idx])
```

(seleção)



**for**  $i = 1, \dots, n$   
    **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

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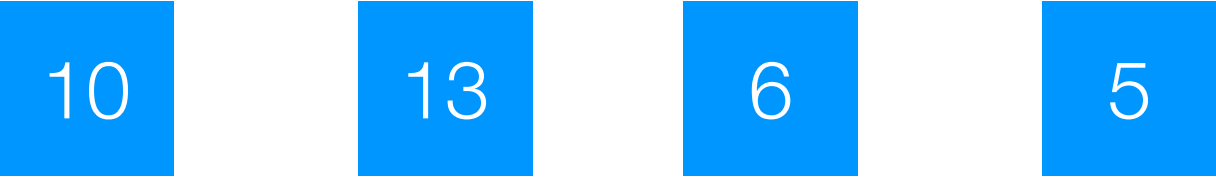
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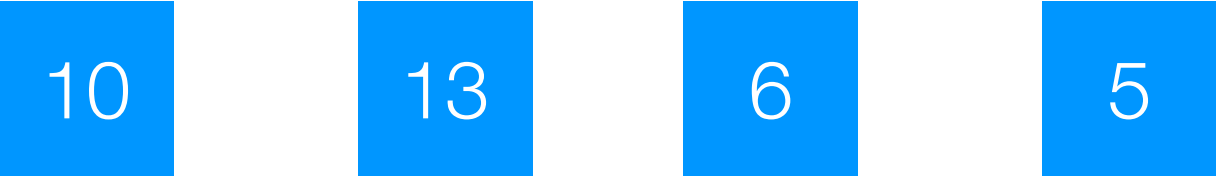
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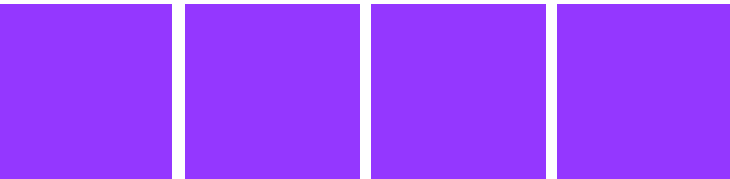
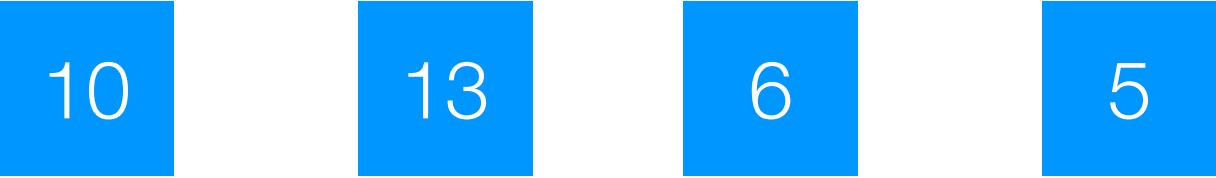
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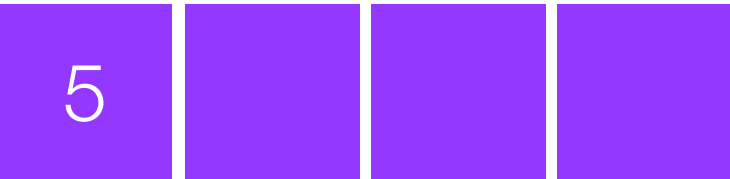
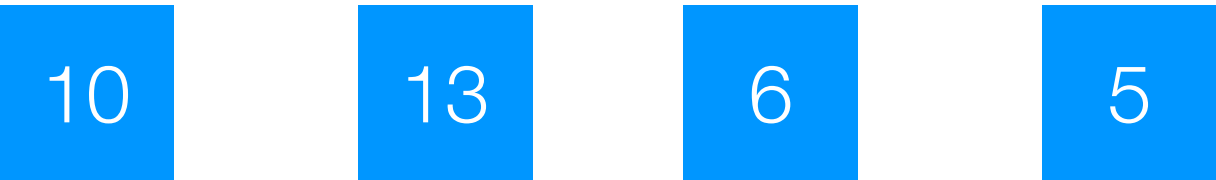
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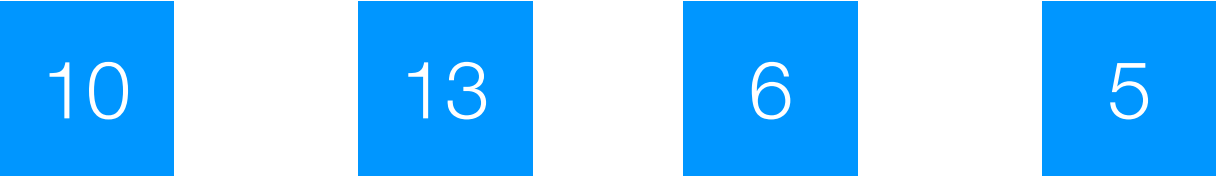
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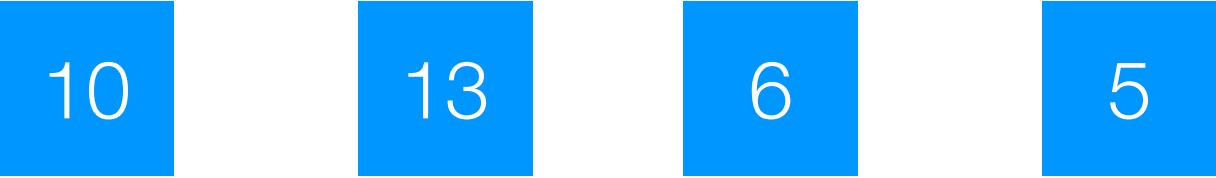
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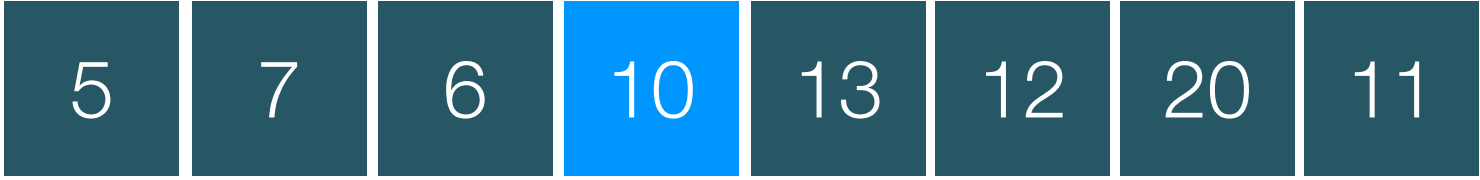


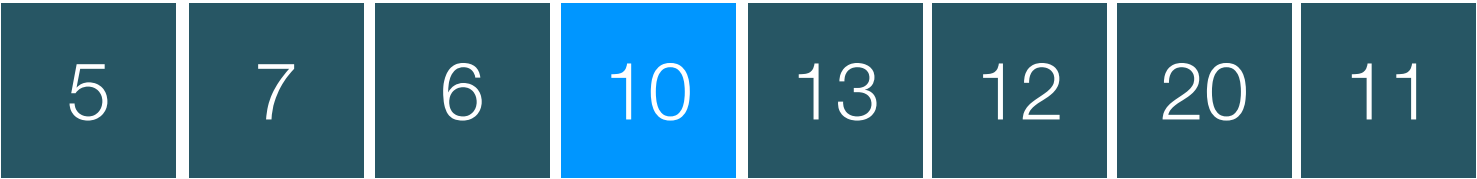


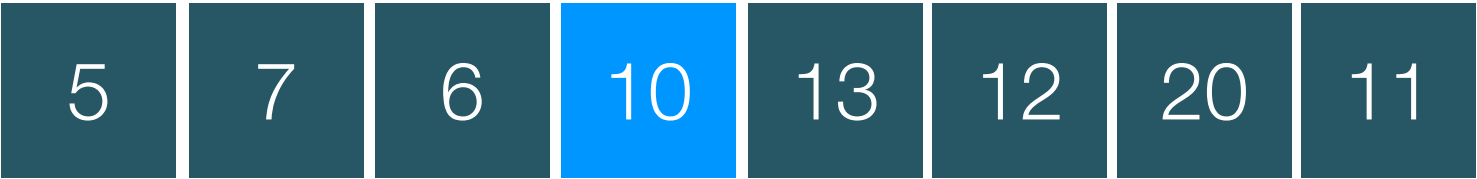


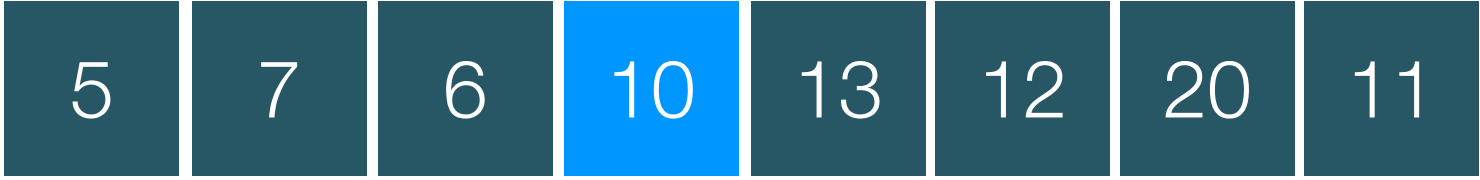


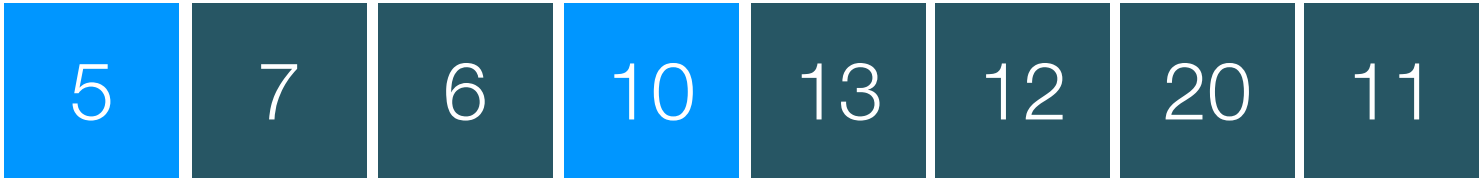


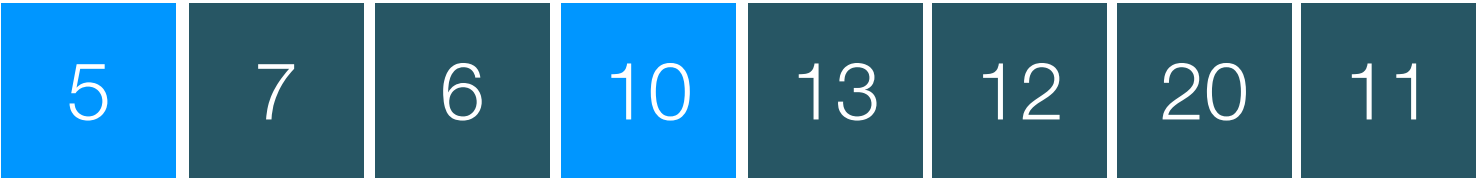


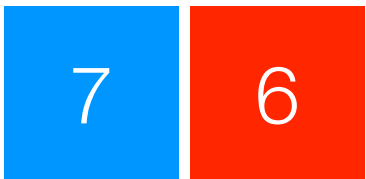
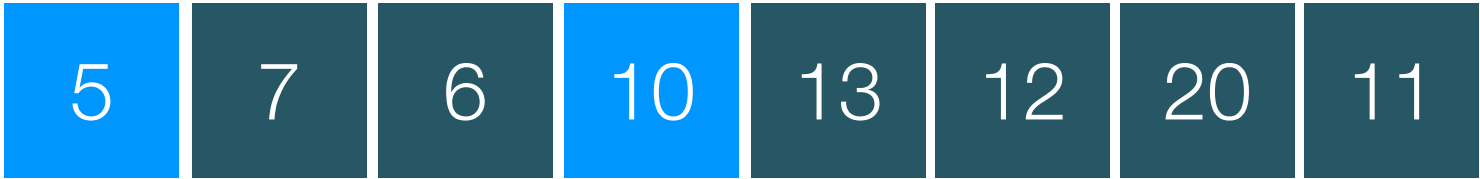




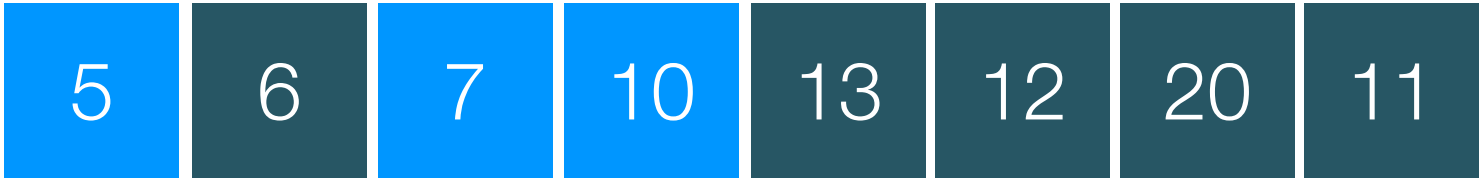


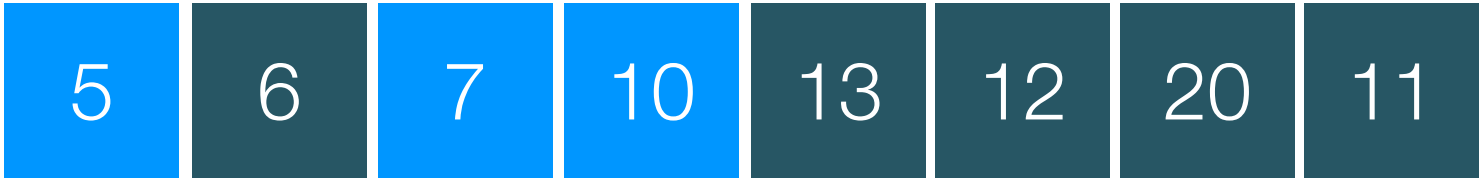


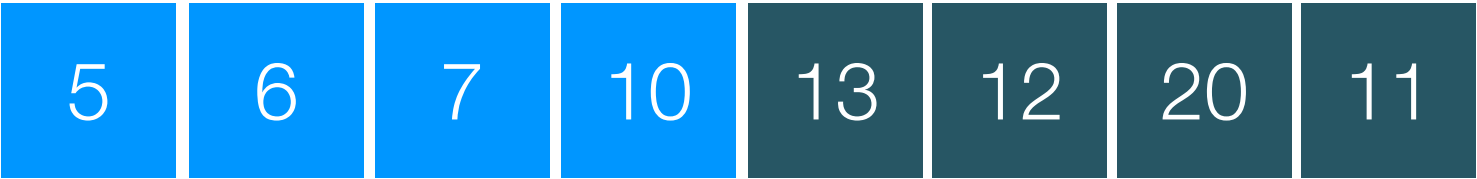


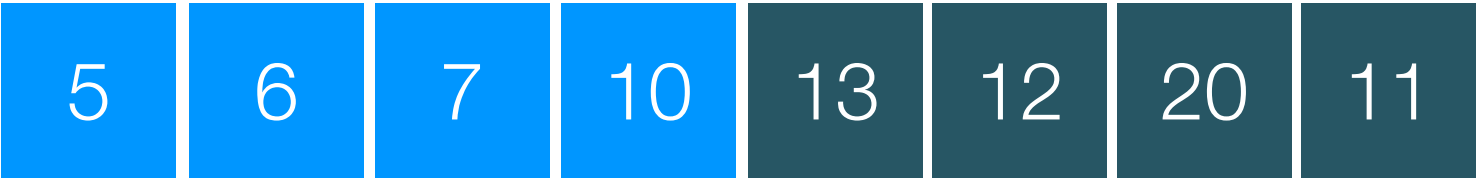


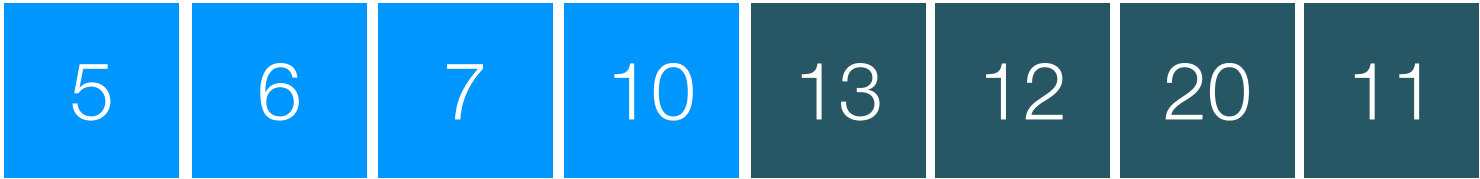


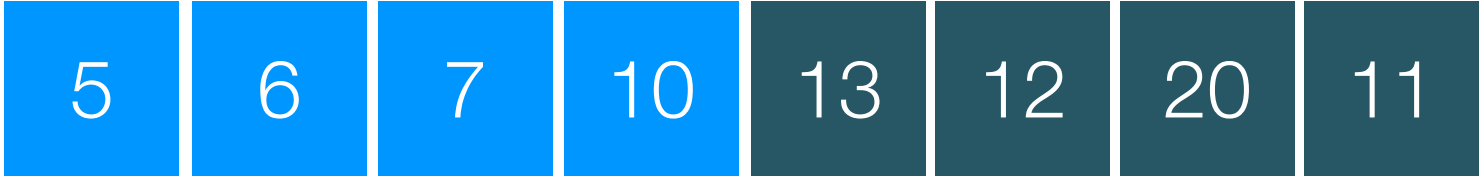


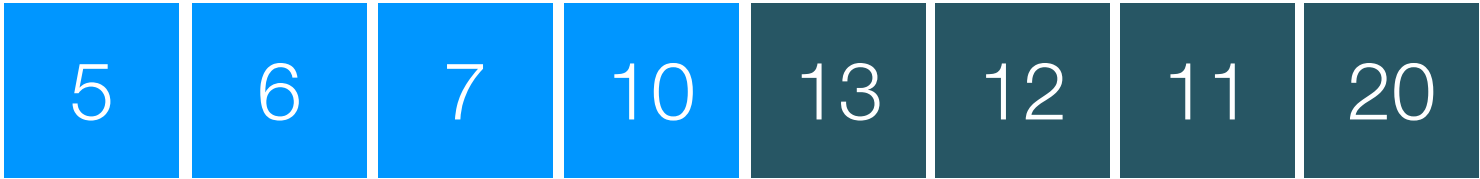


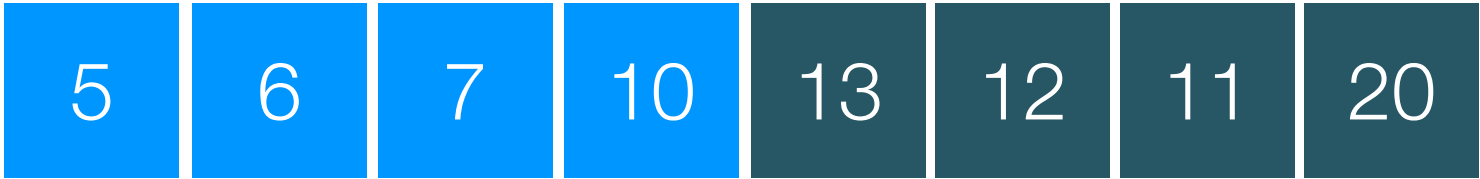




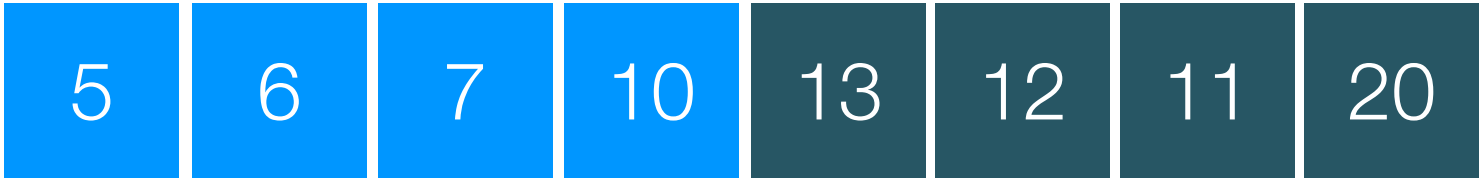


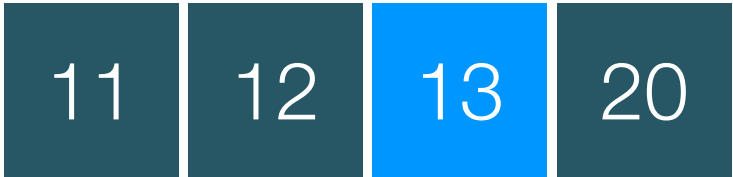
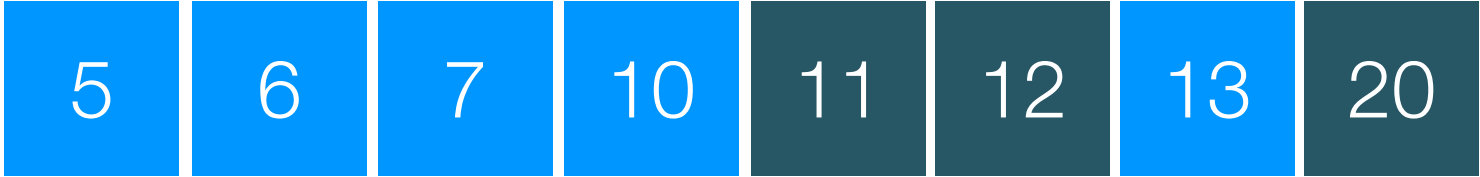


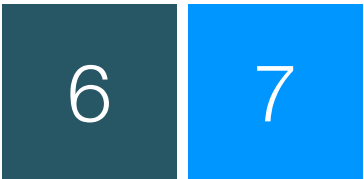
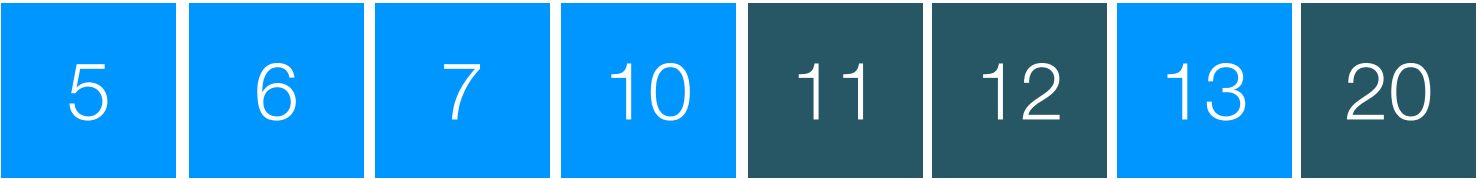


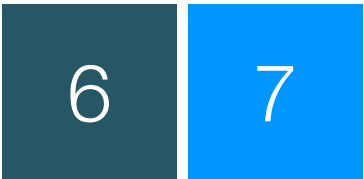
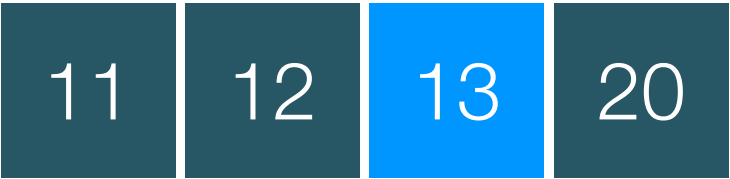
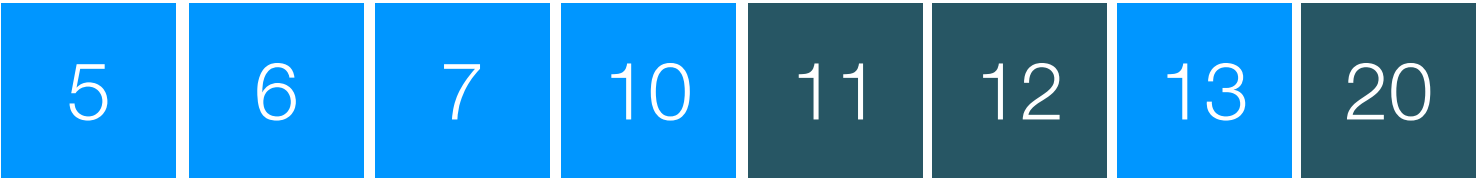


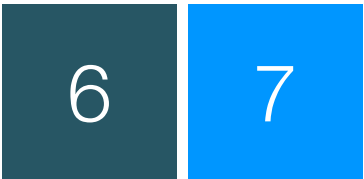
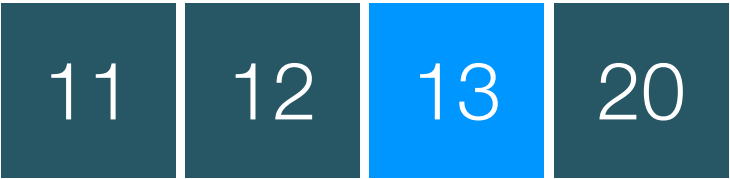
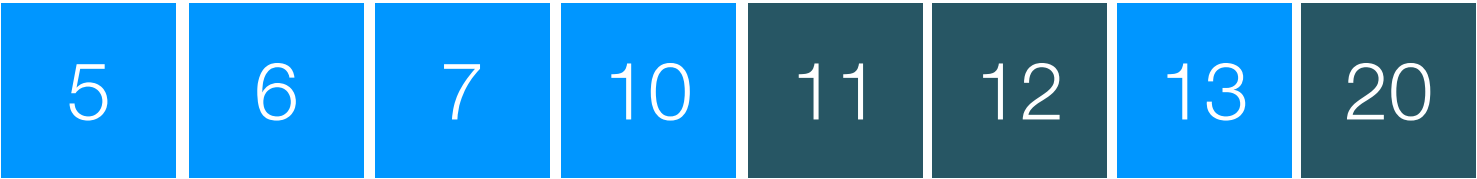


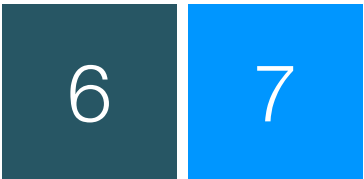
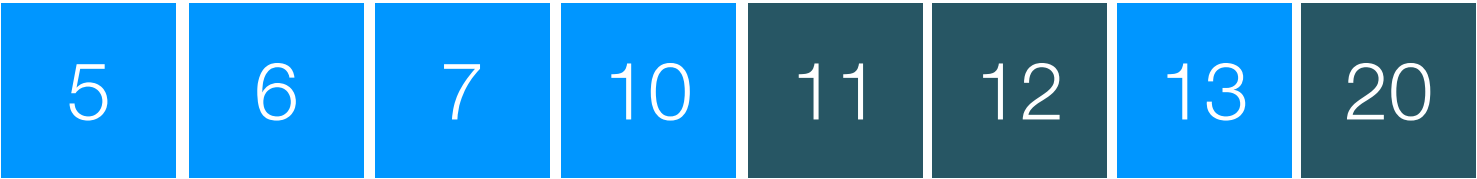


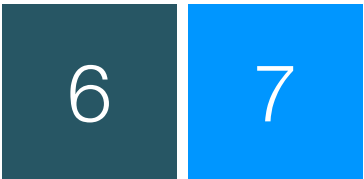


















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