```
function bubbleSort(a) => {
    for (let end = a.length - 1; end >= 1; end--) {
        for (let j = 0; j < end; j++) {
            if (a[j] > a[j + 1]) {
                swap(a, j, j + 1)
            }
        }
    }
}
```

```
1 3,2,4,1
2 2,3,4,1
3 2,3,4,1
4 2,3,1,4
5 2,3,1,4
6 2,1,3,4
7 1,2,3,4
```

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```

# 再帰的関数の例:ハノイの塔

```
function hanoi(num, source, temp, target) {
   if (num === 1) {
      console.log(`${source}->${target}`)
      return
   }
   hanoi(num - 1, source, target, temp)
   console.log(`${source}->${target}`)
   hanoi(num - 1, temp, source, target)
}
hanoi(3, 'a', 'b', 'c')
```