

# Dropping Constants

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The big idea:

When iterating over the same set of data twice in a single algorithm it may be tempting to label the algorithm as  $O(2N)$ , but this would be incorrect.

Take these two examples, which one of them is slower?

```
1  let min = Number.POSITIVE_INFINITY
2  let max = Number.NEGATIVE_INFINITY
3  let arr = [10, 4, 2, 7, 9]
4
5  arr.forEach(num => {
6    if (num < min) min = num
7    if (num > max) max = num
8  })
```

```
1  let min = Number.POSITIVE_INFINITY
2  let max = Number.NEGATIVE_INFINITY
3  let arr = [10, 4, 2, 7, 9]
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5  arr.forEach(num => {
6    if (num < min) min = num
7  })
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9  arr.forEach(num => {
10   if (num > max) max = num
11 })
```