

If 1 item takes 1 second to process, 100 items
take 100 seconds to process

O(N)

Code Example

In this example,
`findRandomNumberInArray(tinyArray)` will
complete in no more than 10 iterations.

`findRandomNumberInArray(largeArray)` will
complete in no more than 100,000,000
iterations.

Remember that although a match is likely to
be found before the end of an array is
reached, Big O Notation is always written
assuming the *worst case scenario*.

```
1 // Creates this array: [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
2 tinyArray = Array.from(Array(10).keys())
3 // Creates a very large array starting with: [0, 1, 2, 3 ...]
4 largeArray = Array.from(Array(100000000).keys())
5
6 findRandomNumberInArray(tinyArray)
7 findRandomNumberInArray(largeArray)
8
9 function findRandomNumberInArray(arr) {
10     randomNum = Math.floor(Math.random() * arr.length)
11     for (let i = 0; i < arr.length; i++) {
12         if (randomNum === arr[i]) return arr[i]
13     }
14 }
15
```