

# Boolean Confusion

[Here is a video walkthrough of the solutions.](#)

Give the best and worst case runtime in  $\Theta(\cdot)$  notation as a function of  $N$ , where  $N$  is `arr.length`. Your answer should be simple with no unnecessary leading constants or summations.

```
1 void confusion(boolean[] arr) {
2     boolean first = arr[0];
3     int next;
4     for (next = 1; arr[next] == first; next++) {
5         if (next == arr.length - 1) {
6             return;
7         }
8     }
9     for (int i = 0; i < next; i++) {
10        arr[i] = !arr[i];
11    }
12    confusion(arr);
13 }
```

Best Case:  $\Theta(\quad)$ , Worst Case:  $\Theta(\quad)$

**Solution:**

Best Case:  $\Theta(N)$ , Worst Case:  $\Theta(N^2)$