LEADER'S IN AN ARRAY

✡ In this problem, we are supposed to return an array of numbers in which each element is a leader (i.e. every element after it in the main array is smaller)

The array being returned may be sorted or not depending on the question.

Brute force solution is to run a double loop for each element and check if all the elements after it are smaller or not. If yes we add it to the final results array. Time complexity is $\sim O(N^2)$.

Optimal Solution is when we start iterating from the right and keep a track of the maximum element which we encounter. If our element is greater than it, it is a leader, we change value as a new maximum is recorded

Pseudocode :

```
leadersInAnArray(arr, N) {
    maxi = - infinity
```

```
int answerArray []
for (i = N → 0) {
    if (arr [i] > maxi) {
        answerArray.append (arr [i])
        maxi = arr [i]
    }
}
return answerArray
}
```