

REMOVING DUPLICATES FROM SORTED

If a sorted array has duplicated elements, we will fill the first n places (n is number of unique elements) with the unique numbers only. Rest all places can be ignored and n is to be returned.

Brute solution is to create a set as it does not have provision for duplicate elements. Inserting into a set takes $N \log N$ and then fitting those unique elements takes N .

$$O(N \log N + N)$$

Optimal solution is to picking the first element, then finding the first element which is different from first element and putting it on 2nd pos. This process is repeated until array ends.

Pseudocode :

```
remDupli(arr, N) {  
    i = 0 ;
```

```
for (int j = 1 → N) {  
    if (arr[j] != arr[i]) {  
        arr[i++] = arr[j];  
    }  
}
```

```
}
```