



## 88. Merge Sorted Array

Solution 1

```
var merge = function(nums1, m, nums2, n)
{
    for(let i=m, j=0; j<n; i++,j++){
        nums1[i] = nums2[j];
    }
    nums1.sort((a, b) => a - b);
}
```

Time Complexity:  $O(n \log n)$

Space Complexity:  $O(1)$

**1**



## 88. Merge Sorted Array

Solution 2

```
var merge = function(nums1, m, nums2, n) {  
    let i = m-1;  
    let j = n-1;  
    let k = m+n-1;  
    while(j>=0 && i>=0){  
        if(nums1[i] < nums2[j]){  
            nums1[k] = nums2[j];  
            j--;  
            k--;  
        }else{  
            nums1[k] = nums1[i];  
            i--;  
            k--;  
        }  
    }  
    while(j>=0){  
        nums1[k] = nums2[j];  
        j--;  
        k--;  
    }  
};
```

Time Complexity:  $O(n)$

Space Complexity:  $O(1)$

**1**



## 27. Remove Element

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### Solution 1

```
var removeElement = function(nums, val) {  
    let k = 0;  
    for(let i=0; i<nums.length; i++){  
        if(val !== nums[i]){  
            nums[k] = nums[i];  
            k++;  
        }  
    }  
    return k;  
};
```

Time Complexity:  $O(n)$

Space Complexity:  $O(1)$

2





## 26. Remove Duplicates from Sorted Array

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### Solution 1

```
var removeDuplicates = function(nums) {  
  let flag = 0;  
  for(let i=1; i<nums.length; i++){  
    if(nums[i]!==nums[flag]){  
      flag++;  
      nums[flag] = nums[i];  
    }  
  }  
  
  return flag + 1;  
};
```

Time Complexity:  $O(n)$

Space Complexity:  $O(1)$

3





## 80. Remove Duplicates from Sorted Array II

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### Solution 1

```
var removeDuplicates = function(nums) {  
  let flag = 2;  
  for(let i=2; i<nums.length; i++){  
    if(nums[i]!==nums[flag-2]){  
      nums[flag] = nums[i];  
      flag++;  
    }  
  }  
  return flag;  
};
```

Time Complexity:  $O(n)$

Space Complexity:  $O(1)$

4





## 169. Majority Element

Solution 1

```
var majorityElement = function(nums) {  
  let numsSort = nums.sort();  
  const n = Math.ceil(nums.length/2);  
  let element = numsSort[n];  
  return element;  
};
```

Time Complexity:  $O(1)$

Space Complexity:  $O(n \log n)$

**5**



## 169. Majority Element

Solution 2

```
var majorityElement = function(nums) {  
    let element = 0;  
    let count = 0;  
  
    for(let i=0; i<nums.length; i++){  
        if(count===0){  
            element = nums[i];  
            count++;  
        }else if(element===nums[i]){  
            count++;  
        }else{  
            count--;  
        }  
    }  
    return element;  
};
```

Time Complexity:  $O(n)$

Space Complexity:  $O(1)$

**5**