

Removed element:

Given an integer array `nums` and an integer `val`, remove all occurrences of `val` in `nums` in-place. The order of elements may be changed. Then return the number of elements in `nums` which are not equal to `val`.

Consider the number of elements in `nums` which are not equal to `val` be `K`, to get accepted, you

- The first `K` elements of `nums` must contain elements not equal to `val`.
- The remaining elements of `nums` do not matter

Ex:

input: `nums = [3, 2, 2, 3]`, `val = 3`

output: `2`, `nums = [2, 2, ..., -]`

constraints:

→ $0 \leq \text{nums.length} \leq 100$

→ $0 \leq \text{nums}[i] \leq 50$

→ $0 \leq \text{val} \leq 100$

Algorithm:

- Initialize $k = 0$.
- Iterate through the array:
 - If $\text{nums}[i] \neq \text{val}$, store it at index $k \rightarrow$
 - $\rightarrow \text{nums}[k] = \text{nums}[i]$
 - \rightarrow increment k
- After the loop, the first k elements contain all numbers not equal to val
- Return k

code:

```
import java.util.Arrays;
import java.util.Scanner;
```

```
class Solution {
```

```
    public int removeElement(int[] nums, int val) {
```

```
        int k = 0;
```

```
        for (int i = 0; i < nums.length; i++) {
```

```
            if (nums[i] != val) {
```

```
                nums[k] = nums[i];
```

```
                k++;
```

```
            }
```

```
        }
```

```
        return k;
```

```
    }
```