



Remove Element

inp: 3, 2, 2, 3, ..., val = 3

opt: 2, 2, ...

idea:

check which element is
not equal to "val"

Time complexity : $O(n)$
Space : $O(1)$

Pseudo code:

```
int j = 0;
```

```
for i = 0 → n-1
```

```
if inp[i] != val  
    inp[j++] = inp[i]
```

```
return j;
```


inp	i	val	cond ⁿ	J	action	result
3, 2, 2, 3	0	3	$3 \neq 3$	0	false	3, 2, 2, 3
3, 2, 2, 3	1	3	$2 \neq 3$	0	true	2, 2, 2, 3
3, 2, 2, 3	2	3	$2 \neq 3$	1	true	2, 2, 2, 3
3, 2, 2, 3	3	3	$3 \neq 3$	2	false	2, 2, 2, 3

$\therefore J = 2$