Started on	Friday, 6 September 2024, 2:45 PM
State	Finished
Completed on	Friday, 6 September 2024, 2:48 PM
Time taken	2 mins 34 secs
Marks	1.00/1.00
Grade	**4.00** out of 4.00 (**100**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Find Duplicate in Array.

Given a read only array of n integers between 1 and n, find one number that repeats.

Input Format:

First Line - Number of elements

n Lines - n Elements

Output Format:

Element x - That is repeated

For example:

Input	Result
5 1 1 2 3 4	1

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int findDuplicate(int arr[], int n) {
    for (int i = 0; i < n; i++) {
        int absValue = (arr[i] > 0) ? arr[i] : -arr[i];
        if (arr[absValue - 1] < 0) {
            return absValue;
        }
        arr[absValue - 1] = -arr[absValue - 1];
    }
    return -1;
}
int main() {
    int n;
    scanf("%d", &n);
    int arr[n];
    for (int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }
    int duplicate = findDuplicate(arr, n);
    if (duplicate != -1) {
        printf("%d", duplicate);
    } else {
        printf("No duplicate found\n");
    }
    return 0;
}
```

	Input	Expected	Got	
✔	11 10 9 7 6 5 1 2 3 8 4 7	7	7	✔
✔	5 1 2 3 4 4	4	4	✔
✔	5 1 1 2 3 4	1	1	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ 4-DP-Longest non-decreasing Subsequence

Jump to...

2-Finding Duplicates-O(n) Time Complexity,O(1) Space Complexity ►