RAJALAKSHMI ENGINEERING COLLEGE

SRIRAM S (12/08/2006) 2024-IT

S2

Started on	Wednesday, 5 November 2025, 4:15 AM
State	Finished
Completed on	Wednesday, 5 November 2025, 4:20 AM
Time taken	5 mins 16 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>
#include<stdlib.h>

int findDuplicate(int arr[], int n) {
    for (int i = 0; i < n; i++) {
        int index = abs(arr[i]) - 1;
        if (arr[index] < 0)
            return abs(arr[i]);
        arr[index] = -arr[index];
    }
    return -1; // No duplicate found
}

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);
    printf("%d\n", duplicate);

    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.

Back to Course