



RAGAVI N 2024-CSE ▾

R2**Started on** Wednesday, 8 October 2025, 3:18 PM**State** Finished**Completed on** Wednesday, 8 October 2025, 3:42 PM**Time taken** 24 mins 11 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 %)

```

1  #include <stdio.h>
2
3  int find_duplicate(int arr[], int n) {
4      int slow = arr[0];
5      int fast = arr[0];
6
7      do {
8          slow = arr[slow];
9          fast = arr[arr[fast]];
10     } while (slow != fast);
11
12     slow = arr[0];
13     while (slow != fast) {
14         slow = arr[slow];
15         fast = arr[fast];
16     }
17     return slow;
18 }
19
20 int main() {
21     int n;
22     scanf("%d", &n);
23
24     int arr[n];
25     for (int i = 0; i < n; i++) {
26         scanf("%d", &arr[i]);
27     }
28
29     int duplicate = find_duplicate(arr, n);
30     printf("%d\n", duplicate);
31
32     return 0;
33 }
34

```

	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](#)