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**Started on** Sunday, 16 November 2025, 8:40 PM

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**State** Finished

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**Completed on** Sunday, 16 November 2025, 8:41 PM

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**Time taken** 1 min 19 secs

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**Marks** 1.00/1.00

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**Grade** **4.00** out of 4.00 (**100%**)

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**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 findDuplicate(int arr[], int n) {
4      int slow = arr[0];
5      int fast = arr[0];
6      do {
7          slow = arr[slow];
8          fast = arr[arr[fast]];
9      } while (slow != fast);
10     fast = arr[0];
11     while (slow != fast) {
12         slow = arr[slow];
13         fast = arr[fast];
14     }
```

```

15
16     return slow;
17 }
18
19 int main() {
20     int n;
21     scanf("%d", &n);
22
23     int arr[n];
24     for (int i = 0; i < n; i++) {
25         scanf("%d", &arr[i]);
26     }
27
28     int duplicate = findDuplicate(arr, n);
29     printf("%d\n", duplicate);
30
31     return 0;
32 }
33

```

	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.

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