Started on	Sunday, 16 November 2025, 8:41 PM
State	Finished
Completed on	Sunday, 16 November 2025, 8:43 PM
Time taken	1 min 15 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 findDuplicate(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      fast = arr[0];
13      while (slow != fast) {
14          slow = arr[slow];
```

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