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Started on	Tuesday, 8 October 2024, 2:10 PM
State	Finished
Completed on	Tuesday, 8 October 2024, 2:21 PM
Time taken	10 mins 23 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  #include <stdlib.h>
3  int main() {
4      int n;
5      scanf("%d", &n);
6      int arr[n];
7
8      for (int i = 0; i < n; i++) {
9          scanf("%d", &arr[i]);
10     }
11
12     for (int i = 0; i < n; i++) {
13         int index = abs(arr[i]) - 1;
14         if (arr[index] < 0) {
15             printf("%d\n", index + 1);
16             return 0;
17         }
18         arr[index] = -arr[index];
19     }
20     return 0;
21 }
22

```

	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.

[◀ 5-Implementation of Quick Sort](#)

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[2-Finding Duplicates- \$O\(n\)\$ Time Complexity, \$O\(1\)\$ Space Complexity ▶](#)