

[Dashbo...](#) / [My cour...](#) / [CS23331-DAA-2023-...](#) / [Competitive Programm...](#) / [2-Finding Duplicates-O\(n\) Time Complexity,O\(1\) Space Comp...](#)

| | |
|--------------|----------------------------------|
| Started on | Tuesday, 8 October 2024, 2:10 PM |
| State | Finished |
| Completed on | Tuesday, 8 October 2024, 2:21 PM |
| Time taken | 10 mins 27 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.

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

Jump to...