



SRIRAM S (12/08/2006) 2024-IT ▾

S2

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|--------------|-------------------------------------|
| Started on | Wednesday, 5 November 2025, 4:12 AM |
| State | Finished |
| Completed on | Wednesday, 5 November 2025, 4:14 AM |
| Time taken | 1 min 50 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 freq[n + 1]; // Frequency array from 1 to n
5
6      // Initialize frequency array
7      for (int i = 0; i <= n; i++)
8          freq[i] = 0;
9
10     // Check for duplicates
11     for (int i = 0; i < n; i++) {
12         if (freq[arr[i]] == 1)
13             return arr[i];
14         freq[arr[i]] = 1;
15     }
16
17     return -1; // No duplicate found
18 }
19
20 int main() {
21     int n;
22     scanf("%d", &n);
23     int arr[n];
24
25     for (int i = 0; i < n; i++)
26         scanf("%d", &arr[i]);
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 | ✓ |

| | Input | Expected | Got | |
|---|----------------|----------|-----|---|
| ✓ | 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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