

CS23331-Design and Analysis of Algorithms-2023 Batch-CS

Quiz navigation

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Finish review

Status	Finished
Started	Friday, 21 March 2025, 9:27 AM
Completed	Friday, 21 March 2025, 9:33 AM
Duration	5 mins 16 secs
Marks	1.00/1.00
Grade	4.00 out of 4.00 (100%)

Question 1

Correct

Mark 1.00 out of 1.00

Flag question

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 int findDup(int arr[],int n)
3 {
4     int a=arr[0],b=arr[0];
5     do{
6         a=arr[a];
7         b=arr[arr[b]];
8     }while(a!=b);
9     a=arr[0];
10    while(a!=b)
11    {
12        a=arr[a];
13        b=arr[b];
14    }
15    return a;
16 }
17 int main()
18 {
19     int n;
20     scanf("%d",&n);
21     int arr[n];
22     for(int i=0;i<n;i++)
23     {
24         scanf("%d",&arr[i]);
25     }
26     printf("%d",findDup(arr,n));
27 }
```

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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