GE23131-Programming Using C-2024

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Started	Monday, 13 January 2025, 9:41 PM
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Question 1

Correct

Marked out of 1.00

⚑ Flag question

You are given a sequence of n-1 distinct positive integers, all of which are less than or equal to a integer 'n'. You have to find the integer that is missing from the range [1,2, . . . n]. Solve the question without using arrays.

Input Format:

One line containing the integer 'n' where 2<=n<=10,000

First line is followed by a sequence of 'n-1' distinct positive integers. Note that the sequence may not be in any particular order.

Output Format:

One line containing the missing number

Sample Test Cases

Test Case 1

Input

3

1 2

Output

3

Test Case 2

Input

4

1 3 4

Output

2

For example:

Input	Result
3 1 2	3
4 1 3 4	2

Answer: (penalty regime: 0 %)

```
1  #include<stdio.h>
2  int main(){
3    int n,num,sum=0;
4    scanf("%d",&n);
5    int expected_sum=n*(n+1)/2;
```

```
 6   for(int i=0;i<n-1;i++){
 7     scanf("%d",&num);
 8     sum+=num;
 9   }
10   int missing_number= expected_sum-sum;
11   printf("%d\n",missing_number);
12   return 0;
13 }
14
```

	Input	Expected	Got	
✓	3 1 2	3	3	✓
✓	4 1 3 4	2	2	✓

Passed all tests! ✓

Question **2**

Correct

Marked out of 1.00

⚑ Flag question

A Teacher came to the class with a large box that has several coins. Each coin has a number Printed on it. Before Coming to the class, she ensured that all the coins occurs an even number of times. However, while coming to the class one coin fell down and got lost. She wants to find out the number of missing coin (Solve the question without using arrays).

Input Format:

Take Number from stdin which no of coins n.

Take n-1 array of Integers from stdin.

Output Format:

Print the number of coin which is missed.

Example Input:

8

5 7 2 7 5 2 5

Output:

5

For example:

Input	Result
8 5 7 2 7 5 2 5	5
6 5 5 6 6 6	6

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main()
{int n,num,result=0;
scanf("%d",&n);
for(int i=1;i<=n;i++)
{result^=i;
}
for(int i=0;i<n-1;i++)
{scanf("%d",&num);
result=num;
}
printf("%d\n",result);
return 0;
}
```

	Input	Expected	Got	
✓	8 5 7 2 7 5 2 5	5	5	✓
✓	6 5 5 6 6 6	6	6	✓

Passed all tests! ✓

An abundant number is a number for which the sum of its proper divisors is greater than the number itself.

Proper divisors of the number are those that are strictly lesser than the number.

Input Format:

Take input an integer from stdin

Output Format:

Print Yes if given number is Abundant. Otherwise, print No

Example input:

12

Output:

Yes

Explanation

The proper divisors of 12 are: 1, 2, 3, 4, 6, whose sum is 1 + 2 + 3 + 4 + 6 = 16. Since sum of proper divisors is greater than the given number, 12 is an abundant number.

Example input:

13

Output:

No

Explanation

The proper divisors of 13 is: 1, whose sum is 1. Since sum of proper divisors is not greater than the given number, 13 is not an abundant number.

For example:

Input	Result
12	Yes
13	No

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main()
{ int n,count=0;
scanf("%d",&n);
for(int i=1;i<n;i++)
{if(n%i==0)
{count=count+i;}
}
if(count>n){
    printf("Yes");

}
else{
    printf("No");
}
return 0;
}
```

	Input	Expected	Got	
✓	12	Yes	Yes	✓
✓	13	No	No	✓

Passed all tests! ✓

Finish review