

<https://course.acciojob.com/idle?question=c8de15f0-1685-4101-b74c-67ea4a321d08>

● EASY

● Max Score: 30 Points

Missing Element in AP

Find the missing element from an ordered array `arr[]`, consisting of `N` elements representing an Arithmetic Progression(AP).

Note: There will always be only one missing element.

Input

First line contains an integer `n` denoting size of array.

Second line contains `n` spaced integers denoting elements of array.

Output

Print a single integer denoting the missing element of AP.

Example 1

Input

```
6
2 4 8 10 12 14
```

Output

```
6
```

Explanation

6 is missing from the increasing AP of 2.

Example 2

Input

```
5
3  8 13 23 28
```

Output

```
15
```

Explanation

18 is missing from the increasing AP of 5.

Constraints

$1 \leq n \leq 10^6$

$1 \leq \text{arr}[i] \leq 10^6$

Topic Tags

- **Arrays**

My code

```
// n java
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
```

```
public static void main (String[] args) throws
java.lang.Exception
{
    //your code here
    Scanner s=new Scanner(System.in);
    int n=s.nextInt();
    int arr[]=new int[n];
    for(int i=0;i<n;i++)
        arr[i]=s.nextInt();
    int a=arr[0];
    int d=arr[1]-arr[0];
    for(int i=1;i<n;i++){
        if(arr[i]==(a+(i*d))) continue;
        else{System.out.print(a+(i*d)); break;}}
    }
}
```