

Take an array arr of size N as input which represents a large number. Add X to this large number and print the resultant array.

eg:-for X = 2 and array is [4,2,3,6,5,8,7,1,5,3,9,6] In this case answer must be [4,2,3,6,5,8,7,1,5,3,9,8]

Note: The large integer does not contain any leading 0's in the array.

Input Format

First line contains an integer N representing the length of array.

Second line contains N integers representing the elements of array.

Third line contains an integer X.

Constraints

```
1 <= N <= 1000000
0 <= arr[i] <= 9
0 <= X <= 9
```

Output Format

print the resultant array.

Sample Input 0

```
10
1 8 7 5 2 2 9 3 7 4
9
```

Sample Output 0

```
1 8 7 5 2 2 9 3 8 3
```

Submitted Code

```
Language: Java 15
1 import java.io.*;
2 import java.util.*;
3
4 public class Solution {
5
6     public static void main(String[] args) {
7         Scanner sc = new Scanner(System.in);
8         int n = sc.nextInt();
9         int arr[] = new int[n];
10        for(int i = 0; i < n; i++) arr[i] = sc.nextInt();
11        int x = sc.nextInt();
12        int res[] = calculateArray(arr, x);
13
14        for(int i = 0; i < res.length; i++) System.out.print(res[i] + " ");
15    }
16    public static int[] calculateArray(int [] arr, int x){
17        for(int i = arr.length - 1; i >= 0; i--){
18            int val = arr[i] + x;
19            arr[i] = val % 10;
20            x = val / 10;
21        }
22
23        if(x <= 0){
24            return arr;
25        }else{
26            int val = 1;
27            int newArray[] = new int[arr.length + 1];
28            newArray[0] = x;
29            for(int i = 0; i < arr.length; i++){
30                newArray[val] = arr[i];
31                val++;
32            }
33            return newArray;
34        }
35    }
36
37 }
38 }
```

val = 5 + 8

for(i = arr.length - 1; i >= 0; i--) {

val = arr[i] + x;

arr[i] = val % 10;

x = val / 10;

x = 1;

x = 8

7 / 10 = 7

7 / 10 = 0

4 / 10 = 4

[2, 4, 7, 8]

int val = arr[i] + x

val = 2 + x

arr[i] = val / 10

x = val / 10

x = 0

[2 3 4 6]

1 8

1 2

3 0

val = 16 / 10 = 1

[0 9 9 9]

x = 1

new [n + 1]

[x 9 9 9 9]



~~for (int i = 0; i < n; i++)~~

~~for (int j = 0; j < n; j++)~~