



Emptying Water from Buckets

There are **N buckets** arranged in a row. Each bucket has a certain amount of water. The maximum capacity and the amount of water in each bucket are passed as the input. A boy performs **N-1 operations** based on the following conditions.

- In the first operation, he empties the 1st bucket into the 2nd bucket (i.e., pouring water from the 1st bucket into the 2nd bucket).
 - In the second operation, he empties the 2nd bucket into the 3rd bucket.
 - Similarly, he performs the remaining operations.
 - During the emptying operation, if the next bucket is full and some water is remaining in the current bucket, the water will be kept in the same bucket.
- After N-1 operations, the program must print the amount of water in the last bucket and the total amount of water remaining in the first N-1 buckets.

Boundary Condition(s):

1 <= N <= 100

For each bucket, 0 <= Amount of water <= Maximum capacity <= 10⁵

Input Format:

The first line contains N.

The second line contains N integers separated by a space representing the maximum capacities of the N buckets.

The third line contains N integers separated by a space representing the amount of water in the N buckets.

Output Format:

The first line contains two integers separated by a space representing the amount of water in the last bucket and the total amount of water remaining in the first N-1 buckets.

Example Input/Output 1:

Input:

```
3
3 4 5
1 3 4
```

Output:

```
5 3
```

Explanation:

Initially, the amount of water in the three buckets are **[1 3 4]**.

1st operation: 1st bucket -> 2nd bucket

[0, 4, 4]

2nd operation: 2nd bucket -> 3rd bucket

[0, 3, 5]

The amount of water in the last bucket is **5**.

The total amount of water in the first two buckets is **3** (0 + 3).

Example Input/Output 2:

Input:

```
3
3 2 3
0 0 0
```

Output:

```
0 0
```

Example Input/Output 3:

Input:

```
4
10 20 30 40
2 2 2 2
```

Output:

```
8 0
```

Max Execution Time Limit: 50 millisecs



```

1 import java.util.*;
2 public class Hello {
3
4     public static void main(String[] args) {
5
6         Scanner sc = new Scanner(System.in);
7
8         int n = sc.nextInt();
9
10        int size[] = new int[n];
11        int water[] = new int[n];
12
13        for(int i=0;i<n;i++) size[i] = sc.nextInt();
14        for(int i=0;i<n;i++) water[i] = sc.nextInt();
15
16        int exceptLast =0;
17
18        for(int i=0;i<n-1;i++){
19
20
21            int needWater = size[i+1]-water[i+1];
22
23            if(water[i]>=needWater){
24                water[i+1]=size[i+1];
25                water[i]-=needWater;
26            }else if(needWater>water[i]){
27                water[i+1]+= water[i];
28                water[i]=0;
29            }
30
31            exceptLast+=water[i];
32
33        }
34
35        System.out.println(water[n-1]+" "+exceptLast);
36
37
38
39
40    }
41 }

```

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Code did not pass the execution

Input:

4
10 20 30 40
2 2 2 2

Expected Output:

8 0

Your Program Output:

2 0

Save

Run