CMPUT 274 - Tangible Computing **Fall 2017**
Morning Problem: Arbitrary Precision Subtraction

Description

I have two *really* big positive numbers. Can you help me compute their difference?

Input

The first line contains a single integer $1 \leq n \leq 100,000$ denoting the number of digits in each number. The second line contains n space-separated digits (from 0 to 9), denoting the value of the first number. The third line contains the second n-digit number in the same format. Any digit may be 0.

It is guaranteed that the first number is at least as large as the second.

Output

Output a single line containing n space-separated digits, denoting the difference of the two numbers. Leading digits may be 0.

Sample Input 1

```
1
1
0
```

Sample Output 1

```
1
```

Sample Input 2

```
2
9 5
9 5
```

Sample Output 2

```
0 0
```

Sample Input 3

```
3
9 9 9
9 9 9
```

Sample Output 3

```
0 0 0
```

Sample Input 4

```
3
1 0 0
0 9 9
```

Sample Output 4

```
0 0 1
```