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Modify The Sequence 🔖

by wanbo

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You are given a sequence of integers $a_1, a_2, a_3.....a_n$. You are free to replace any integer with any other positive integer. How many integers must be replaced to make the resulting sequence strictly increasing?

Input Format
The first line of the test case contains an integer N - the number of entries in the sequence.
The next line contains N space separated integers where the ith integer is a_i.

Output Format
Output the minimal number of integers that should be replaced to make the sequence strictly increasing.

Constraints
$0 < N \le 10^6$
$0 < a_i \le 10^9$

Sample Input #00

```
3
4 10 20
```

Sample Output #00

```
0
```

Sample Input #01

```
6
1 7 10 2 20 22
```

Sample Output #01

```
1
```

Sample Input #02

```
5
1 2 2 3 4
```

Sample Output #02

```
3
```

Explanation

In the first sample input, we need not replace anything, hence the output is 0.

In the second sample input, we can replace 2 with any integer between 11 and 19 to make the sequence strictly increasing, hence the output is 1.

In the third sample input, we can obtain 1, 2, 3, 4, 5 by changing the last three elements of the sequence.

Submissions:1150

Max Score:100
Difficulty: Advanced

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More

Current Buffer (saved locally, editable)   ⑂ ⟲   Java 7   ⌄   ⤢   ⚙

```java
 1 ▾ import java.io.*;
 2   import java.util.*;
 3   import java.text.*;
 4   import java.math.*;
 5   import java.util.regex.*;
 6
 7 ▾ public class Solution {
 8
 9 ▾     public static void main(String[] args) {
10 ▾         /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11         }
12   }
```

Line: 1 Col: 1

⬆ Upload Code as File   ☐ Test against custom input   Run Code   Submit Code

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