

# DOSA — Lalith Dosa

Dominik Farhan

## Original source

<https://www.spoj.com/problems/DOSA/>

## Problem statement

Lalith is going to have dinner and he has  $N$  dosas in front of him with their prices represented by sequence of integers  $a_1, a_2, a_3, \dots, a_n$ .

And he has decided to eat in a different manner. You are free to replace the price of any dosa with any positive integer.

How many prices (integers) must be replaced to make the resulting sequence strictly increasing?

## Input

The first line of the test case contains an integer  $N$  — the number of dosas ( $0 < N < 10^6$ ).

The next line contains  $N$  space separated integers where the  $i$ th integer is  $a_i$  ( $0 < a_i < 10^9$ ), representing the price of  $i$ -th dosa.

## Output

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