# B. Long Path

One day, little Vasya found himself in a maze consisting of $(n+1)$ rooms, numbered from $1$ to $(n+1)$. Initially, Vasya is at the first room and to get out of the maze, he needs to get to the $(n+1)$-th one.

The maze is organized as follows. Each room of the maze has two one-way portals. Let's consider room number $i$ $(1 \leq i \leq n)$, someone can use the first portal to move from it to room number $(i+1)$, also someone can use the second portal to move from it to room number $p_i$, where $1 \leq p_i \leq i$.

In order not to get lost, Vasya decided to act as follows.

- Each time Vasya enters some room, he paints a cross on its ceiling. Initially, Vasya paints a cross at the ceiling of room $1$.
- Let's assume that Vasya is in room $i$ and has already painted a cross on its ceiling. Then, if the ceiling now contains an odd number of crosses, Vasya uses the second portal (it leads to room $p_i$), otherwise Vasya uses the first portal.

Help Vasya determine the number of times he needs to use portals to get to room $(n+1)$ in the end.

## Input

The first line contains integer $n$ $(1 \leq n \leq 10^3)$ — the number of rooms. The second line contains $n$ integers $p_i$ $(1 \leq p_i \leq i)$. Each $p_i$ denotes the number of the room, that someone can reach, if he will use the second portal in the $i$-th room.

## Output

Print a single number — the number of portal moves the boy needs to go out of the maze. As the number can be rather large, print it modulo $1000000007$ $(10^9+7)$.

## Examples

**input**
```
2
1 2
```
**output**
```
4
```

**input**
```
4
1 1 2 3
```
**output**
```
20
```

**input**
```
5
1 1 1 1 1
```
**output**
```
62
```