STEP 1   STEP 2   STEP 3 | THEORY   PRACTICE | SUBMIT   SUBMISSIONS   HACKS   STANDINGS   CUSTOM INVOCATION

ITMO Academy: pilot course » Disjoint Sets Union » Step 2 » Practice

B. Parking

time limit per test: 2 seconds
memory limit per test: 256 megabytes

There are n slots on a circular parking enumerated from 1 to n. There are n cars that want to park in the natural order. i-th car wants to park at p_i-th slot. If the car drives to a parking slot and her slot is occupied, it drives in a circular manner and parks on the first vacant slot.

Input

The first line contains integer n ($1 \le n \le 300\,000$) — the size of the parking and the number of cars. The second line contains n integers, p_i ($1 \le p_i \le n$) — the slot that wants to be occupied by car i.

Output

Output n numbers. i-th number should be the parking slot which was occupied by i-th car.

Example

input	Copy
3 2 2 2	
output	Copy
2 3 1	

→ Submit?

Language: GNU G++20 13.2 (64 bit, win ▾)

Choose file: [Choose File] No file chosen

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