

Problem D: Exciting Spider

Time Limit: 1 Sec Memory Limit: 128 MB

Submit: 1837 Solved: 242

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Description

Ancient Spider is a very popular card game, and Vince loves to play it. Today he wants to play Ancient Spider again, but he changes the rule to make it more exciting. At the beginning of the game, Vince has an empty slot on the table. There are n different cards numbered from 1 to n , and Vince will receive them one by one in a given order and put the cards onto the top of the slot. At any time, Vince can pick up a card from the top of slot and discard it. If Vince discards all n cards, the game is over. Vince wants you to help him find the smallest lexicographical order among all possible discarding orders at the end of the game.

If you don't know the concept of lexicographical order, you can see the reference in the following link: https://en.wikipedia.org/wiki/Lexicographical_order (https://en.wikipedia.org/wiki/Lexicographical_order)

Input

The first line is an integer T , which is the number of test cases.

Each test case contains two lines. The first line has an integer, n .

The second line contains a sequence A of length n , which is a permutation of 1 to n , representing the order Vince receives the cards.

($1 \leq T \leq 5$, $1 \leq n \leq 300000$)

Output

For each test case, print n integers in a line, which is the order discarding the card with the smallest lexicographical order.

Sample Input

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

Sample Output

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

HINT

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