

TCenayang Permutation

TCP

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TCenayang got the letter from his leader of PT. PutinuddinCeria. He has to created a code for searching the level of given permutation. He wants to create this code either using CPP or C, and he decided to create using AVL because he very good at AVL.

The letter contains instruction below:

"Given a permutation of N numbers, ascertain the lexicographical order of the permutation. A lexicographical order of a permutation is the amount of permutation that is less than or equal to the permutation lexicographically."

Help TCenayang to create that code or he will be fired!!

Constraints

$1 \leq N \leq 20$

$1 \leq N_i \leq 100$

Input Format

The first line N should be contains how many numbers of given input. On the next line should be the amount of numbers for permutation.

Output Format

The lexicographical order permutation after modulation by 1000000007.

Sample Input

3

2 16 28

Sample Output

1

Explanation

From 2 16 28 there are 6 possible placement:

1. 2 16 28

2. 2 28 16

3. 16 2 28

4. 16 28 2

5. 28 2 16

6. 28 16 2

Output on the **1st** placement.