

时间限制：C/C++/Rust/Pascal 2秒，其他语言4秒
空间限制：C/C++/Rust/Pascal 512 M，其他语言1024 M
Special Judge, 64bit IO Format: %lld

题目描述

Yuki gives you a sequence of n positive integers f_1, \dots, f_n , where for each i , $1 \leq f_i \leq i$ holds. She wants you to construct an n -ordered square matrix A such that:

- For each $1 \leq i, j \leq n$, $0 \leq A_{i,j} \leq n$;
- For each $1 \leq i \leq n$, $\text{mex}(A_{i,1}, A_{i,2}, \dots, A_{i,n}) = \text{mex}(A_{1,i}, A_{2,i}, \dots, A_{n,i}) = f_i$.

It can be proven that for any valid f_1, \dots, f_n , a solution always exists.

Recall that the mex of a sequence b_1, \dots, b_m is the smallest non-negative integer x such that x does not appear in b .

输入描述:

Each test contains multiple test cases. The first line of input contains a single integer t ($1 \leq t \leq 2 \cdot 10^4$) – the number of test cases. The description of the test cases follows.

The first line contains a single integer n ($1 \leq n \leq 1414$), denoting the length of the sequence.

The second line contains n integers f_1, \dots, f_n ($1 \leq f_i \leq i$), describing the given sequence.

It is guaranteed that the sum of n^2 over all test cases does not exceed $2 \cdot 10^6$.

输出描述:

For each test case, output n lines, in which the i -th line contains n non-negative integers $A_{i,1}, A_{i,2}, \dots, A_{i,n}$ in the range $[0, n]$.

示例1

输入

复制

3
3
1 1 2
5

C++ (clang++18)

1

ACM模
请通过
入输出
出描述!

运行结果 自测数据