Derangements
Filename: derangements

A derangement of size k is a permutation of the integers 0, 1, 2, …, k-1, where no value in the permutation is equal to the 0-based index at which it's located. For example, for k = 3, there are two derangements:

1, 2, 0
2, 0, 1

Notice that of the other four, (0,1,2) and (0,2,1) start with 0, (1,0,2) ends with 2, and (2,1,0) has a 1 at index 1.

The Problem
Given a positive integer, k ($2 \leq k \leq 8$), print out all of the derangements of size k, in lexicographical order.

The Input
The first line of the input file will contain a single positive integer, n, representing the number of input cases. The following n lines will each contain a single positive integer, k, representing the input for that case.

The Output
For each input case, output each derangement on a line by itself, in lexicographical order. Each derangement should be printed with commas in between each value in the list, with no comma after the last value.

Sample Input
```
2
2
3
```

Sample Output
```
1,0
1,2,0
2,0,1
```