

# Picking Cards



There are  $N$  cards on the table and each has a number between 0 and  $N$ . Let us denote the number on the  $i^{\text{th}}$  card by  $c_i$ . You want to pick up all the cards. The  $i^{\text{th}}$  card can be picked up only if at least  $c_i$  cards have been picked up before it. (As an example, if a card has a value of 3 on it, you can't pick that card up unless you've already picked up 3 cards previously) In how many ways can all the cards be picked up?

## Input Format

The first line contains the number of test cases  $T$ .  $T$  test cases follow. Each case contains an integer  $N$  on the first line, followed by integers  $c_1, \dots, c_i, \dots, c_N$  on the second line.

## Output Format

Output  $T$  lines one corresponding to each test case containing the required answer for the corresponding test case. As the answers can be very big, output them modulo 1000000007.

## Constraints:

$1 \leq T \leq 10$

$1 \leq N \leq 50000$

$0 \leq c_i \leq N$

## Sample Input:

```
3
3
0 0 0
3
0 0 1
3
0 3 3
```

## Sample Output:

```
6
4
0
```

## Sample Explanations:

For the first case, the cards can be picked in any order, so there are  $3! = 6$  ways.

For the second case, the cards can be picked in 4 ways:  $\{1,2,3\}$ ,  $\{2,1,3\}$ ,  $\{1,3,2\}$ ,  $\{2,3,1\}$ .

For the third case, no cards can be picked up after the first one, so there are 0 ways to pick up all cards.