

Yet Another Permutations Problem

How many permutations of the first N numbers exist such that the maximum element between the indices [i..j] is either present at index i, or at index j ?

Input

The first line contains the number of test cases T. Each of the next T lines contains an integer N

Output

Output T lines containing the required answer for the corresponding test case. Since the answers can get really big, output the result modulo 1000000007.

Example

Sample Input:

1
2

Sample Output:

2

Constraints

$1 \leq T \leq 10000$

$1 \leq N \leq 1000000000$