In a galaxy far far away there is an ancient game played among the planets. The specialty of the game is that there is no limitation on the number of players in each team, as long as there is a captain in the team. (The game is totally strategic, so sometimes less player increases the chance to win). So the coaches who have a total of N players to play, selects K ($1 \le K \le N$) players and make one of them as the captain for each phase of the game. Your task is simple, just find in how many ways a coach can select a team from his N players. Remember that, teams with same players but having different captain are considered as different team.

Input

The first line of input contains the number of test cases $T \leq 500$. Then each of the next T lines contains the value of N ($1 \leq N \leq 10^9$), the number of players the coach has.

Output

For each line of input output the case number, then the number of ways teams can be selected. You should output the result modulo 1000000007.

For exact formatting, see the sample input and output.

Sample Input

3

1

2

3

Sample Output

Case #1: 1 Case #2: 4 Case #3: 12