There are N boxes with balls in them. All the balls have different colors so they are distinguishable. First box has 2 balls, 2nd box has 3 balls, 3rd box has 4 balls and so on. So Nth box have N+1 balls. You choose one of the N boxes and take 2 balls from this, one in left hand and another in right hand. How many numbers of ways are there to do it. Note that, same two balls but in different hands will be considered different.

Input

First line of the input is $T \leq 100000$, then T test cases follow in next T lines. Each line contains an integer $N \leq 10000000000$ or 10^9 . The meaning of N is given in the problem statement.

Output

For each test case print a line in 'Case I: S' format where I is the case number and S is answer modulo by 1000000007.

Sample Input

2

1

2

Sample Output

Case 1: 2 Case 2: 8