John Sum

John while wondering thought about a function f(n) which is equal to sum of all the subsets of the set formed by first n natural numbers. For example f(2)=1+2+1+2=6. Now, John got another idea and defined another function sum(n)=f(1)+f(2)......+f(n).

Input
The first line of the input contains T(1<=T<=100000) - number of test cases. Each of the next T lines contains an integer n(1<=n<=1000000000).

Output
Print the value of sum(n) for given n.

Note
As the answer could be large print it modulo 1000000007.