**Geek and his Tricky Series**

Submissions: [4588](https://practice.geeksforgeeks.org/problem_submissions.php?pid=2760)  Accuracy:

25.47%

   Difficulty: [Easy](https://practice.geeksforgeeks.org/Easy/0/0/)   Marks: 2

Show Topic Tags   

Given a series with starting 6 members of the series. Given an integer **n** find the **nth** term of this series.

Series: 7, 15, 32, 67, 138, 281, ............

Examples :

Input : 7

Output : 568

**Input:**  
First line of the input contains an integer **T**, denoting the number of test cases. Then**T** test case follows. The only line of the test case contains an integer **N**.  
  
**Output:**  
For each test case print the nth term of the series in a new line.Print the answer modulo 10^9 +7.  
  
**Constraints:**  
1<=T<=100  
1<=N<=120  
  
**Example:  
Input:**  
2  
9  
16  
**Output:**  
2294  
294895

\*\* For More Input/Output Examples Use ['Expected Output'](https://practice.geeksforgeeks.org/problems/geek-and-his-tricky-series/0/?ref=self#ExpectOP) option \*\*

[Author: harshitsidhwa](https://auth.geeksforgeeks.org/user/harshitsidhwa/practice/)

<https://practice.geeksforgeeks.org/problems/geek-and-his-tricky-series/0/?ref=self>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApp1

{

class Program

{

static int FindNTH(int nth)

{

int a = 7;

int sum = 1;

for (int i = 2; i <= nth; i++)

{

a = ((a \* 2)% 1000000007) + sum;

sum++;

}

return a;

}

static void Main(string[] args)

{

int T = int.Parse(Console.ReadLine());

while (T-- > 0)

{

int N = int.Parse(Console.ReadLine().Trim());

Console.WriteLine(FindNTH(N) % 1000000007);

}

Console.ReadLine();

}

}

}