Progressive progressions

An arithmetic progression is a sequence of numbers a_1, a_2,... a_n such that a_{i+1}-a_i is equal for all $0 \le i < n$. This difference is called the common difference of the arithmetic progression.

Now consider a sequence of arithmetic progressions $A_1 = (a_{1,1}, a_{1,2}, \ldots a_{1,n_1})$, $A_2 = (a_{2,1}, a_{2,2}, \ldots a_{2,n_2})$,... $A_k = (a_{k,1}, a_{k,2}, \ldots a_{k,n_k})$

A progressive progression is such a sequence with the additional properties that:

- $a_{i,n_i} = a_{i+1,1}$ for $1 \le i < k$
- c_i, the common difference of A_i, is a positive factor of $a_{i,1}$ for $1 \le i \le k$
- $c_i < c_{i+1}$ for $1 \le i < k$
- $n_i > 1$ for $1 \le i \le k$
- $k \ge 1$

Find the number of progressive progressions such that $a_{1,1}=1$ and $a_{k,n_k} = N$. As this number can be quite large, output it modulo 100000007.

Input

The first line of input contains T (≤ 100), the number of testcases. This is followed by the description of the testcases. The description of each testcase consists of a single integer N (1 < N ≤ 1000000).

Output

For each testcase, output modulo 100000007 the number of progressive progressions such that $a_{1,1}=1$ and $a_{k,n_k} = N$

Example

Input:
2
5
10

Output:
1
6