Problem Divisors

Input file	`stdin`
Output file	`stdout`

You are given a number N. You are asked to find the number of sequences $a_1, \ldots, a_k$ such that $a_1 \mid a_2 \mid \cdots \mid a_k$ (that is, a_1 divides a_2, which divides a_3, and so on), and $N = a_1 + \cdots + a_k$.

For example, if $N = 6$, then we have the following values for $a_1, \ldots, a_k$:

1. 6
2. 1, 5
3. 1, 1, 4
4. 1, 1, 1, 3
5. 1, 1, 1, 1, 2
6. 1, 1, 1, 1, 1, 1
7. 1, 1, 2, 2
8. 2, 4
9. 2, 2, 2
10. 3, 3

Hence the answer would be 10.

Input data

The first line in the input data contains the number of test cases T. The T lines that follow contain the values of N for which you must compute the answer.

Output data

Output T lines, the answers for the T values of N you are given. Since these answers are quite large, output their remainder modulo $10^9 + 7$.

Restrictions

- $1 \leq T \leq 100\,000$.
- $1 \leq N \leq 500\,000$.

#	Points	Restrictions
1	12	$N \leq 20$
2	21	$N \leq 100$
3	33	$N \leq 1000$
4	34	No further restrictions.

Examples

Input file	Output file
3 6 10 500000	10 26 475702494

Explanation

The first test case is explained in the problem description. For $N = 10$ the answers are

1. 10
2. 1, 9
3. 1, 1, 8
4. 1, 1, 1, 7
5. 1, 1, 1, 1, 6
6. 1, 1, 1, 1, 1, 5
7. 1, 1, 1, 1, 1, 1, 4
8. 1, 1, 1, 1, 1, 1, 1, 3
9. 1, 1, 1, 1, 1, 1, 1, 1, 2
10. 1, 1, 1, 1, 1, 1, 1, 1, 1, 1
11. 1, 1, 1, 1, 1, 1, 2, 2
12. 1, 1, 1, 1, 2, 4
13. 1, 1, 1, 1, 2, 2, 2
14. 1, 1, 1, 1, 3, 3
15. 1, 1, 2, 6
16. 1, 1, 2, 2, 4
17. 1, 1, 2, 2, 2, 2
18. 1, 1, 4, 4
19. 1, 3, 6
20. 1, 3, 3, 3
21. 2, 8
22. 2, 2, 6
23. 2, 2, 2, 4
24. 2, 2, 2, 2, 2
25. 2, 4, 4
26. 5, 5

So the answer is 26.