Split the number

Given a natural number n, in how many ways can you split the number into sum of two or more natural numbers? For eg, 4 can be splitted in 4 ways:



Input

First line consists of t, the number of test cases.

Each of the t lines consists of n (1<=n<=1000)

Output

Output t lines each containing the corresponding number of ways the number can be splitted. Since this answer can be large, print the answer modulo 1000000007.

Example

Input:

3

Output:

4