C. Sum of drop times

Time limited: 10 seconds

Problem Description

Hoa has a six-sided dice and want to drop n times, after each drop the number is recorded and counted how many times the dice appeared the same as the previous one is c, for example, with n = 7 the numbers appearing as (1,1,5,6,6,6,3) number of times dice appeared are the same as in the previous one is c = 3.

Let C(n) be the number of dice drop times c <= (number of prime numbers <= n). Let S(n) = ΣC(i) with 1 <= i <= n, Calculate S(n) mod 10^9+7

Input

Multiple lines, each line has number n (1 <= n <= 1000000)

Output

Each line is answer of each test

Example

3	258
4	1548
50	832833871