时间限制: C/C++/Rust/Pascal 3秒,其他语言6秒

空间限制: C/C++/Rust/Pascal 512 M, 其他语言1024 M

64bit IO Format: %IId

题目描述 🔀

Let S_n be the set of all n-ordered permutations. For $\sigma \in S_n$, let $\nu(\sigma)$ be the number of elements in the set $\{\mu^{-1}\sigma\mu \mid \mu \in S_n\}$.

Given a fixed integer k, you have received multiple queries of n, and for each of the values, you must compute

$$\sum_{\sigma \in S_n} \nu(\sigma)^k$$
,

taken modulo 998244353.

输入描述:

The first line of input contains two integers t and k $(1 \le t \le 10^3,\ 1 \le k \le 10^9)$ — the number of test cases and the given constant value.

Then t lines follow. Each line contains a positive integer n $(1 \le n \le 2 \cdot 10^5)$, representing a query.

输出描述:

Output a total of t lines. For each query, output a single line containing an integer, representing your answer modulo 998244353.

示例1

輸入7 11234567

① C++ (clang++18)

ACM模

请通过 入输出 出描述:

运行结果

自测報