



时间限制: C/C++/Rust/Pascal 6秒, 其他语言12秒

空间限制: C/C++/Rust/Pascal 1024 M, 其他语言2048 M

Special Judge, 64bit IO Format: %lld

① C++ (clang++18)

1

ACM模

请通过

入输出

出描述

题目描述

Sean is glad that he has already finished grading all his students' tests. But he is no longer glad when he sees the final scores. How low they are!

Luckily for both Sean and his students, the dean's office allows Sean to "curve" the scores to make the scores "look better" as long as higher scores are still higher.

The scores are in the range $[1, 100]$, and there are two classic operators used in curving:

- Type 1: $f_1(x) = kx + b$, where $10^{-2} \leq k \leq 1, 0 \leq b \leq 10^4, k + b \geq 1$.
- Type 2: $f_2(x) = \sqrt{x}$.

After curving, Sean will map the curved score into the target score range, which we don't really care for now.

Sean has an array of operators of length n : $[g_1, g_2, \dots, g_n]$, each of them is either Type 1 or Type 2.

Each time, to test the curving result, Sean tries the functions with a new initial value x . He chooses a subarray of the operator array $[g_l, g_{l+1}, \dots, g_r]$, and uses the operators like this:

- Initiate a_0 with x .
- Calculate the variables $a_1, a_2, \dots, a_{r-l+1}$ using the following equations: $a_1 = g_l(a_0), a_2 = g_{l+1}(a_1), \dots, a_{r-l+1} = g_r(a_{r-l})$.

As Sean is way too busy and lazy to do this, he asks you to help him. To know about the curving result and make sure you fully follow his process,

he asks you about both a_{r-l+1} and $\sum_{i=1}^{r-l+1} a_i$. Sean may change some of the operators between the two times he asks questions. Can you handle it?

输入描述:

The first line contains an integer n ($1 \leq n \leq 10^5$), the length of the operator array.

Each line from the 2-nd to the $(n+1)$ -th contains a line that represents the function g_i . Each line can be of two forms:

运行结果

自测数据