时间限制：C/C++/Rust/Pascal 2秒，其他语言4秒
空间限制：C/C++/Rust/Pascal 512 M，其他语言1024 M
64bit IO Format: %lld

题目描述

There are n numbers $a_1, a_2, \ldots, a_n$ in a group, labeled with $1, 2, \ldots, n$, and they keep competing with each other. A number competes with any other number in the group every day and loses when it is smaller than its competitor. It takes part in $n-1$ competitions in total, and if it loses at least $\lceil \frac{n-1}{2} \rceil$ competitions, it is numb with failure. Note that $\lceil x \rceil$ is the smallest integer y such that $y \geq x$.

So every day, there can always be some numbers that are numb with failure. As a kind mental therapist, you feel obliged to talk to them to cheer them up. So you wonder how many numbers are numb each day, which determines the amount of your work.

The numbers don't remain the same. Each day, exactly one of them practices really hard and enlarges itself. Once the number changes, it won't change until it further enlarges itself. So every day, you may face a different situation.

输入描述:

The first line of the input contains an integer T ($1 \leq T \leq 10^4$), indicating the number of test cases. For each test case:

The first line contains two integers n ($3 \leq n \leq 2 \times 10^5$) and q ($1 \leq q \leq 2 \times 10^5$), indicating the number of numbers in the group and the number of days for updating their values.

The second line contains n integers $a_1, a_2, \ldots, a_n$ ($1 \leq a_i \leq 10^9$), indicating the value of each number.

Then q lines follow, each of which contains two integers p ($1 \leq p \leq n$) and v ($1 \leq v \leq 10^9$), indicating the label of the number that is enlarged and the value by which it is increased.

It is guaranteed that both the sum of n and the sum of q for all test cases do not exceed 5×10^5.

输出描述:

For each test case, output q integers, indicating the number of numb numbers after each update.

示例1

输入 复制

C++（clang++18）

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ACM模
请通过
入输出
出描述

运行结果 自测