

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

T. Grid And Diagonals

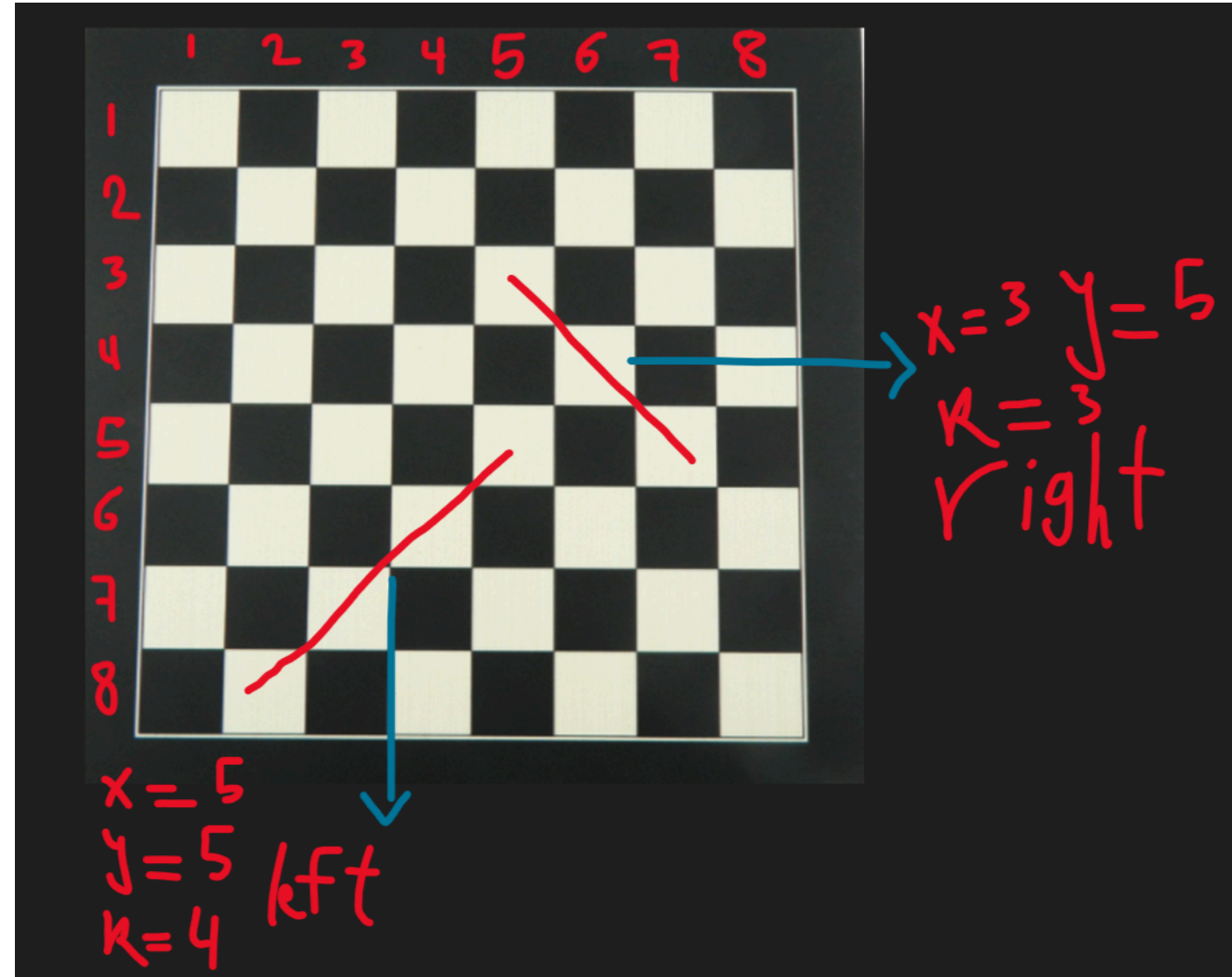
time limit per test: 2 seconds
memory limit per test: 256 megabytes

Given a grid g with n rows and m columns that all its values are equal to zero.

You have to perform q queries, each query has one type of the following:

- 1, x , y , k and a : that means add the value a to the right diagonal that start at $g[x][y]$ and it's length is k .
- 2, x , y , k , and a : that means add the value a to the left diagonal that start at $g[x][y]$ and it's length is k .

Print the grid g after performing all queries.



Represent the second example

Input

The first line contains three integers n ($1 \leq n \leq 10^6$), m ($1 \leq m \leq 10^6$) and q ($1 \leq q \leq 10^6$) – represents the number of rows, the number of columns and the number of queries respectively.

Each line of following lines contains 5 integers t ($1 \leq t \leq 2$) (– represents the type of the i – th query) and x ($1 \leq x \leq n$) and y ($1 \leq y \leq m$) and k ($1 \leq k \leq 10^6$) and a ($1 \leq a \leq 10^9$).

It's guarantee that $n * m \leq 10^6$.

Output

Print the grid g after perform queries.

Examples

input	Copy
5 5 2 1 3 3 3 6 2 1 3 3 6	
output	Copy
0 0 6 0 0 0 6 0 0 0 6 0 6 0 0 0 0 0 6 0 0 0 0 0 6	

ICPC Assiut University Training - Juniors Phase 1 Sheets-2022

Public

Participant

→ Group Contests

- Juniors Phase 1 Practice #5 (Bitmask, Bitset, Bits)
- Juniors Phase 1 Practice #4 (Binary search , Two pointers)
- Juniors Phase 1 Practice #3 (STL 2)
- Juniors Phase 1 Practice #2 (STL 1)
- Juniors Phase 1 Practice #1 (Prefix sum , Frequency Array)

Juniors Phase 1 Practice #1 (Prefix sum , Frequency Array)

Finished

Practice

→ Virtual participation

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Start virtual contest

→ Submit?

Language: GNU G++20 13.2 (64 bit, win

Choose file: Choose File No file chosen

Submit

→ Last submissions		
Submission	Time	Verdict
305397373	Feb/10/2025 06:23	Accepted
305396397	Feb/10/2025 06:10	Accepted

input	Copy
8 8 2 1 3 5 3 1 2 5 5 4 1	
output	Copy
0 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 1 0 1 0 0 0 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0	

Note

If there exist a diagonal that some of it's cells are out of the grid consider only the cells that exist in the grid from this diagonal.

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