

Problem	Leaderboard Discussions
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In mysterious world of pokemon, there is a pokemon known as CryptoMat and there are two types of stones (water stone and fire stone). CryptoMat is a legendary pokemon, it can evolve to three forms CrytoFame by using fire stone, CryptoWave using water stone and CryptoAir using both stones.CryptoMat(s) are located in a matrix of size m\*m. Now you are given q queries and in each query you are given type of query, n and type of stone. For the type of stone 0 for fire stone and 1 for water stone. For each type of query you will be given 0 and 1 where 0 means give a stone to all the CyrptoMat in nth row and 1 means give a stone to all CryptoMat in nth column.

Print the total number CyptoMat, CryptoWave, CryptoFame and CryptoAir as given in Input Output.

Other Things to keep in mind

- 1) Fire + Fire = Fire
- 2) Water + Water = Water
- 3) Water + Fire + Anything = Fire + Water (CryptoAir)

Input Format

The first line of input contains m and q where size of the given matrix is m\*m and q is the number of queries. Then next q lines contain 3 integer where 1st integer represents row(0) or column(1) then n where n represent the nth row or column and 3rd integer represents the type of stone 0 for fire stone and 1 for water stone

## Constraints

 $1 \le m \le 10^5$ 

 $1 \le q \le 10^6$ 

0 ≤ n ≤ m-1

Output Format

Print the number of CryptoAir, CryptoWave, CryptoFame and CryptoMat seperated by a space.

Sample Input 0

5 4

0 1 0

0 3 1

1 2 0

Sample Output 0

2 7 7 9

Sample Input 1

6 5

0 0 1

0 2 0

0 4 0

1 1 0 1 3 1

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Sample Output 1 3 8 13 12 f ⊌ in Contest ends in 30 minutes Submissions: 7 Max Score: 25 Difficulty: Hard Rate This Challenge:  $\triangle \triangle \triangle \triangle \triangle \triangle$ More Current Buffer (saved locally, editable) & 🔊 C  $\Diamond$ 1 ▼ #include <stdio.h> 2 #include <string.h> 3 #include <math.h> 4 #include <stdlib.h> 6▼int main() { 8▼ /\* Enter your code here. Read input from STDIN. Print output to STDOUT \*/ return 0; 10 } 11 Line: 1 Col: 1 **♣** <u>Upload Code as File</u> ☐ Test against custom input Run Code Submit Code

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