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01 : 13 : 32
HRS   MIN   SEC

March Circuits '18

LIVE

Mar 17, 2018, 04:30 PM CET - Mar 26, 2018, 05:30 PM CEST

← Problems / Missile Bombing

Missile Bombing
Max. Marks: 100

There is N x N field on which missiles are being bombarded. Initially, all the cells in this field have 0 value. There will be M missiles bombarded on this field. i^{th} missile will have power P_i and it will affect all the cells in region with (A_i,B_i) as top-left cornor and (C_i,D_i) as bottom-right cornor. Because of missile, value of all the cells in this rectangle will get XOR with P_i.

After all the missiles have been bombarded, you have to find out values in each cell of this field.

INPUT:
First line of input will consists integer N. Next line of input will consists of M. Next M lines will contain description of missiles. i^{th} line will contain five integers - P_i, A_i, B_i, C_i, D_i.

OUTPUT:
You have to print the values in the final field. You have to print N lines, with each line containing the N integers. Integer at i^{th} row and j^{th} column should contain the value present at that position in the field.

CONSTRAINTS:
$1 \le N \le 1000$
$1 \le M \le 10^4$
$1 \le P_i \le 10^5$
$1 \le A_i \le C_i \le N$
$1 \le B_i \le D_i \le N$

SAMPLE INPUT   🔗 ⎘

```
3
3
3 3 1 3 2
2 2 1 2 2
3 1 1 2 3
```

?

SAMPLE OUTPUT

```
3 3 3
1 1 3
3 3 0
```

Explanation

.

Time Limit:	2.0 sec(s) for each input file.
Memory Limit:	256 MB
Source Limit:	1024 KB
Marking Scheme:	Marks are awarded if any testcase passes.
Allowed Languages:	C, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, Racket, Ruby, Rust, Scala, Swift, Visual Basic

CODE EDITOR

Enter your code or Upload your code as file.   Save   C++14 (g++ 5.4.0) ▾

```cpp
1   #include <iostream>
2   #include <vector>
3   #include <algorithm>
4   int main()
5   {
6       int n; std::cin >> n;
7       int m; std::cin >> m;
8       std::vector<std::vector<int>> vec(n);
9
10      for(int row = 0; row<n; ++row)
11          for(int col = 0; col<n; ++col)
12              vec[row].emplace_back(0);
13
14
15      for(int i = 0; i<m; ++i)
16      {
17          int Power, A, B, C, D;
18          std::cin >> Power >> A >> B >> C >> D;
19
20          for(int row = A-1; row<C; ++row)
21              for(int col = B-1; col<D; ++col)
22                  vec[row][col] ^= Power;
23                  //std::cout << vec[row-1][col-1] << std::endl;
24          }
25      for(int row = 0; row<n; ++row)
26      {
27          for(int col = 0; col<n; ++col)
```

```
28              std::cout << vec[row][col] <<" ";
29          std::cout << std::endl;
30      }
31      return 0;
32  }
33
```
                                                                    33:1

▼ Provide custom input   💡 *Press Ctrl-space for autocomplete suggestions.*

| COMPILE & TEST | SUBMIT |

Submission ID: 15946086 / 21 seconds ago

RESULT: ✓ Accepted

Score	Time (sec)	Memory (KiB)	Language
100.0	3.63243	4372	C++14

Input	Result	Time (sec)	Memory (KiB)	Score
Input #1	✓	0.109579	64	12
Input #2	✓	0.111536	64	12
Input #3	✓	0.113257	64	12
Input #4	✓	0.780507	4372	12
Input #5	✓	0.794005	4372	12
Input #6	✓	0.835183	4372	12
Input #7	✓	0.784791	4372	12
Input #8	✓	0.10357	64	16

Compilation Log

No compilation log for this submission.

✏️ **Tip:** You can submit any number of times you want. Your best submission is considered for computing total score.

Your Rating: ★★★★★

COMMENTS (51) ⟳   SORT BY: Relevance ▾

?

Join Discussion...

Cancel   Post

Typing 9 days ago

how can (3,1) and (3,2) form a rectangle? poor explanation

▲ 5 votes ● Reply ● Message ● Permalink

Jeet Jain 9 days ago

Explanation is clear. (3,1) and (3,2) are positions in the field and at each position we have a cell or a block. So combine two cells and you will get a rectangle.

▲ 5 votes ● Reply ● Message ● Permalink

Gautam Kumar 9 days ago

how to count no of cells?

▲ 0 votes ● Reply ● Message ● Permalink

Rohith Varma M 8 days ago

could you please explain..... Jeet

▲ 0 votes ● Reply ● Message ● Permalink

Ashish Lal 9 days ago

Misleading Constraints. :-/

▲ 3 votes ● Reply ● Message ● Permalink

Ginni Hema Sundara Rao 5 days ago

true

▲ 0 votes ● Reply ● Message ● Permalink

Pratyush Gaurav Jagaty 7 days ago

Are the test cases up to the mark? Because just a brute is passing!

▲ 3 votes ● Reply ● Message ● Permalink

sShuvo Ehsan ✎ Edited 7 days ago

Dataset is so much poor ! Just a simple brute force solution which should take (1000 * 1000) * (10000) in wrost case is passing !

▲ 1 vote ● Reply ● Message ● Permalink

Previn Kumar ✎ Edited 7 days ago

Hi, But i'm using python3, for 4 testcases timelimit exceeds, Can u suggest me what to do?. Im using 3loops and finally 2 loops for printing in matrix form

▲ 1 vote ● Reply ● Message ● Permalink

Anita Bhadouria 5 days ago

same here, can anyone please suggest, I can't optimize beyond this

▲ 0 votes ● Reply ● Message ● Permalink

sShuvo Ehsan ✎ Edited 5 days ago

For every query , two loop is enough though . Think easily . Update all the cells from (lx ,ly) to (rx , ry) by assuming thats a rectangle . Hope ,it will help you .

▲ 0 votes ● Reply ● Message ● Permalink

Previn Kumar 5 days ago

Thanks for suggestion. I think for sure we need to use three loops(including input line to get missile details). In python 4 testcases failed. But i did the same in C, all testca passed :)

▲ 0 votes ● Reply ● Message ● Permalink

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Ganesh Jadhav 5 days ago
You can solve it in O(1000*10000*log(n)) time.That is in O(10^8).
▲ 0 votes ● Reply ● Message ● Permalink

Ganesh Jadhav 5 days ago
You can solve it in O(1000*10000*log(n)) time.That is in O(10^8).I think this could be a hint.
▲ 0 votes ● Reply ● Message ● Permalink

Hare Krishna 9 days ago
where is explanation?????????
▲ 1 vote ● Reply ● Message ● Permalink

Rahul Bansal 8 days ago
please clarify the coordinate system for grid
▲ 1 vote ● Reply ● Message ● Permalink

Nikesh Shetty 7 days ago
For people who need explanation, simply consider (A,B) and (C,D) equivalent to (rowNum,ColNum)
▲ 1 vote ● Reply ● Message ● Permalink

Nitesh kumar 20 hours ago
only first test case is passing....can anyone explain..why...? rest give runtime error and 2 gives wrong ans
..
▲ 1 vote ● Reply ● Message ● Permalink

Preetam 4 hours ago
same here bro
▲ 0 votes ● Reply ● Message ● Permalink

Jitender Kumar 9 days ago
where is the explanation man.....???
▲ 0 votes ● Reply ● Message ● Permalink

lankesh purekar 9 days ago
does the sample ouput is correct ????
▲ 0 votes ● Reply ● Message ● Permalink

lankesh purekar 9 days ago
sorry, i was worng sample output is ok...........
▲ 0 votes ● Reply ● Message ● Permalink

Nitin Bahekar Patil 7 days ago
hao re ...
▲ 0 votes ● Reply ● Message ● Permalink

kishan gaur 9 days ago
where is the explanation?
▲ 0 votes ● Reply ● Message ● Permalink

Haridas 9 days ago
how to create a 2d array of size 1000*1000
▲ 0 votes ● Reply ● Message ● Permalink

Arvind Negi 9 days ago
Create array globally...
▲ 0 votes ● Reply ● Message ● Permalink

Rohith Varma M ✎ Edited 8 days ago

?

could anybody please explain......

▲ 0 votes ● Reply ● Message ● Permalink

Pranaykumar Anugurti 8 days ago

error: invalid types 'int[int]' for array subscript
getting this error while accesing 2 d array

▲ 0 votes ● Reply ● Message ● Permalink

Kungfu Pandya 8 days ago

take a look at your variables

▲ 0 votes ● Reply ● Message ● Permalink

Anju Rawat 8 days ago

anyone give me more taste cases?
because my solution pass only 1st taste case !!

▲ 0 votes ● Reply ● Message ● Permalink

Sayantan Banerjee 8 days ago

where is the explanation?could u please explain the sample test case?

▲ 0 votes ● Reply ● Message ● Permalink

ROMAN REIGNS 8 days ago

where is the explanation ?

▲ 0 votes ● Reply ● Message ● Permalink

Akshatha KN 8 days ago

C# compiler is not working. Even the below code is taking Infinite time to compile.

using System;
namespace s3{
class Test{
public static void Main(string[] args){
Console.WriteLine("Hi");
}
}
}
Please check.

▲ 0 votes ● Reply ● Message ● Permalink

Akshay Bagal ✎ Edited 8 days ago

I used same logic (same number of loops) in Python3 and C. with python 3 only 3 cases got passed. while
with c , all cases got passed. seems to be problem with python3 interpreter..

▲ 0 votes ● Reply ● Message ● Permalink

Sumit Dubey 8 days ago

could not create compile log for STDOUT?
what does that mean ?

▲ 0 votes ● Reply ● Message ● Permalink

Ignacio Monllor 8 days ago

where is the explanation ?

▲ 0 votes ● Reply ● Message ● Permalink

Boris Sokolov 8 days ago

The judge system is not stable!
Submission #15732353 gets WA#3 and submission #15732559 gets Accepted.
But code is completely the same as well as compiler.

▲ 0 votes ● Reply ● Message ● Permalink

Hrithik Singh 8 days ago

subscripted value is neither array nor pointer nor vector

?

explain
▲ 0 votes ● Reply ● Message ● Permalink

plumber hl 5 days ago

[ ] is called subscript operator.In Python .you can use it with lists,arrays(vectors)..but if you have used it with
neither of those, it gives that error.
Eg: lst = [1,2,5] ---> lst[1] = 2
a = 522 ------> a[2] = trows an error
Check if you haven't used subscript operator as explained above.
▲ 0 votes ● Reply ● Message ● Permalink

Hrithik Singh 5 days ago

i ve wriiten simply a[i][j] = a[i][j]^p
▲ 0 votes ● Reply ● Message ● Permalink

plumber hl 4 days ago

then a might not be an array/list.check if you have initialized it properly.
▲ 0 votes ● Reply ● Message ● Permalink

kartik chauhan 7 days ago

Explanation
.
▲ 0 votes ● Reply ● Message ● Permalink

mr.introvert 7 days ago

the same code gives correct output in ide while incorrect output in hacker earth compiler ...!!
▲ 0 votes ● Reply ● Message ● Permalink

abhishek handa 6 days ago

Simple Brute Force Question
▲ 0 votes ● Reply ● Message ● Permalink

Abhishek Ranjan 6 days ago

interesting problem ..
▲ 0 votes ● Reply ● Message ● Permalink

Anant Kumar 4 days ago

Too weak test cases
▲ 0 votes ● Reply ● Message ● Permalink

Waqar Ahmad 3 days ago

passing all test cases even for O(N*N*M) algorithm (was supposed to get TLE).
Weak test cases.
▲ 0 votes ● Reply ● Message ● Permalink

KUNWAR DESH DEEPAK SINGH 2 days ago

brute force is working whats the problem???solve it in O(n^3) yhen also all test cases got passed why?????????????
▲ 0 votes ● Reply ● Message ● Permalink

Kaustubh D 2 days ago

Which language did you use ? My O(n^3) isn't working
▲ 0 votes ● Reply ● Message ● Permalink

KUNWAR DESH DEEPAK SINGH 2 days ago

i used cpp.
▲ 0 votes ● Reply ● Message ● Permalink

?

Preetam 4 hours ago

any hint?

▲ 0 votes ● Reply ● Message ● Permalink

any hint?

▲ 0 votes ● Reply ● Message ● Permalink

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