

05 : 03 : 35 : 30
DAY HRS MIN SEC

Codathon - Inter NIT Coding Competition 2020

LIVE

Jan 12, 2020, 06:00 PM IST - Jan 19, 2020, 06:00 PM IST

5
LIVE EVENTS

INSTRUCTIONS

PROBLEMS

SUBMISSIONS

LEADERBOARD

ANALYTICS

JUDGE

[← Problems](#) / DAY 2

DAY 2

Max. Marks: 100

You are given a $N \times N$ matrix and have to perform Q queries on it. Queries are of 2 types:

- a) 1 a b c : For each element e_{ij} ($a \leq i \leq b$ and $1 \leq j \leq N$) in the matrix, $e_{ij} = e_{ij} \oplus c$
b) 2 a b c : For each element e_{ij} ($1 \leq i \leq N$ and $a \leq j \leq b$) in the matrix, $e_{ij} = e_{ij} \oplus c$

After these queries are performed, print the sum of the diagonal (top left to bottom right) elements.

INPUT

The first line contains an integer denoting N

The next N lines contains N space separated integers

The next line contains an integer denoting Q

The next Q lines contain 4 space separated integers depending on the type of query

OUTPUT

A single line denoting the sum of diagonal elements of the final matrix

CONSTRAINTS

$$1 \leq N \leq 1000$$

$$1 \leq Q \leq 2 * 10^6$$

$$1 \leq c \leq 10^3$$

$$1 \leq a, b \leq N$$

$$1 \leq e_{ij} \leq 10^4$$

NOTE: Use fast I/O.

SAMPLE INPUT

```
3
2 3 1
3 2 1
4 3 2
```



```
1
1 2 3 2
```

SAMPLE OUTPUT



```
2
```

Time Limit: 1.0 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:** Bash, 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, R(RScript), Racket, Ruby, Rust, Scala, Swift, Swift-4.1, TypeScript, Visual Basic

CODE EDITOR

Enter your code or [Upload your code](#) as file.[Save](#)

C (gcc 5.4.0)



```
1 /*
2 // Sample code to perform I/O:
3 #include <stdio.h>
4
5 int main(){
6     int num;
7     scanf("%d", &num);           // Reading input from STDIN
8     printf("Input number is %d.\n", num); // Writing output to STDOUT
9 }
10
11 // Warning: Printing unwanted or ill-formatted data to output will cause the test
12 */
13
14 // Write your code here
15
```

1:1

Press Ctrl-space for autocomplete suggestions (accuracy dependent on connection stability).

☒ [Provide custom input](#)