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Wanda/Vision

Problem   Submissions   Leaderboard   Discussions

Wanda and Vision are enjoying their time being trapped in the Westview anomaly. It is a sunday afternoon and your task is to help them collect maximum coins possible!

There is a grass field in the shape of a square grid of size nxn and there are specific number of coins in each grid cell (given in input). Wanda and Vision start on two different grid cells initially and they can travel only to cells which are **along the same diagonal** as themselves to collect the coins(i.e can travel only along two diagonals) .Also,they should choose their starting positions such that their diagonals do **not intersect** at a common grid cell, i.e., Wanda and Vision both cannot collect coins from the same grid cell.

Help them by telling them the maximum number of coins they can collect in total(adding their respective sums) by choosing their start positions optimally.

As the answer can be rather large print it modulo 1000000007 (10^9 + 7).

Input Format

First line- integer(n) => dimension of grass field

Next n lines - for each line i,n integers denoting number of coins in each grid cell=> (c[i,j])

Constraints

$2 \le n \le 2000$

$0 \le c[i,j] \le 10^9$

Output Format

Print a single integer denoting the maximum number of coins that can be collected by the couple.

Sample Input 0

```
4
1 1 1 1
2 1 1 0
1 1 1 0
1 0 0 1
```

Sample Output 0

```
12
```

Explanation 0

If Wanda starts at cell (2,2) and Vision starts at cell (3,2) :

Wanda's sum=1+1+1+1+1=6

Vision's sum=1+1+1+2+0=6

Total=6+6=12

Submissions: 112
Max Score: 100
Difficulty: Medium

Rate This Challenge:
☆☆☆☆☆

More

Current Buffer (saved locally, editable)   C++

```cpp
1  #include <cmath>
2  #include <cstdio>
3  #include <vector>
4  #include <iostream>
5  #include <algorithm>
6  using namespace std;
7
8
9  int main() {
10     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
11     return 0;
12 }
13
```

Line: 1 Col: 1

⬆ Upload Code as File   ☐ Test against custom input   Run Code   Submit Code