

<https://course.acciojob.com/idle?question=a99fcd56-d79b-4397-898f-2dfbf44da6f5>

● EASY

● Max Score: 20 Points

Matrix Diagonal Sum

Given a square matrix `mat`, return the sum of the matrix diagonals.

Note: Only include the sum of all the elements on the primary diagonal and all the elements on the secondary diagonal that are not part of the primary diagonal.

Input Format

The first line of input contains integer `N` which is the number of rows and columns of the square matrix.

Next `N` lines contain `N` spaced integers each.

Output Format

Print a single integer which is the sum of diagonals.

Example 1

Input

```
3
1 2 3
4 5 6
7 8 9
```

Output

25

Explanation

The sum is $1+5+9+3+7 = 25$. Note that we don't re-count the element `mat[1][1]` i.e. 5.

Example 2

Input

```
4
1 1 1 1
1 1 1 1
1 1 1 1
1 1 1 1
```

Output

8

Explanation

The sum is $1+1+1+1+1+1+1+1 = 8$.

Constraints

$1 \leq N \leq 1000$

$-100 \leq \text{mat}[i][j] \leq 100$

Topic Tags

- 2D-Arrays

My code

```
// n java
import java.util.*;
import java.lang.*;
import java.io.*;
```

```

public class Main
{
    public static void main (String[] args) throws
java.lang.Exception
    {
        //your code here
        Scanner s=new Scanner(System.in);
        int n=s.nextInt();

        int arr[][]=new int[n][n];
        for(int i=0;i<n;i++)
            for(int j=0;j<n;j++)
                arr[i][j]=s.nextInt();

        int c=0;long sum=0;
        while(c<n)
            {sum+=arr[c][c];c++;}

        c=0;long sum2=0;
        while(c<n)
            {sum2+=arr[c][n-c-1];c++;}
        long ans =sum+sum2;
        if(n%2==1)
            ans =ans-arr[n/2][n/2];
        System.out.print(ans);
    }
}

```