**Find difference between sum of diagonals**

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Given a matrix of **n X n**. The task is to calculate the absolute difference between the sums of its diagonal.

Input : A[][] = 11 2 4

4 5 6

10 8 -12

Output : 15

Sum of primary diagonal = 11 + 5 + (-12) = 4.

Sum of primary diagonal = 4 + 5 + 10 = 19.

Difference = |19 - 4| = 15.

**Input:**  
The first line of input consists of T, denoting the Test Cases. Then T test cases follow. The first line of every test case consists of N, denoting the size of matrix N X N. The second line of every test case consists of N\*N spaced integers Ai.  
  
**Output:**  
For each test case in a single line print an integer denoting the difference between the sum of its diagonals.  
  
**Constraints:**  
1<=T<=100  
1<=N<=50  
1<=Ai<=100  
  
**Example:  
Input:**  
2  
3  
11 2 4 4 5 6 10 8 -12  
4  
1 2 3 4 5 9 7 8 6 10 11 12 13 14 15 16  
**Output:**  
15  
3

\*\*For More Examples Use Expected Output\*\*

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<http://practice.geeksforgeeks.org/problems/find-difference-between-sum-of-diagonals/0>

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\*/

package javaapplication250;

import java.io.\*;

import java.math.\*;

import java.util.\*;

/\*\*

\*

\* @author Administrador

\*/

public class JavaApplication250 {

public static void main(String[] args) throws IOException {

// TODO code application logic here

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

int t = Integer.parseInt(br.readLine());

while(t-- > 0) {

int n = Integer.parseInt(br.readLine());

String[] input = br.readLine().trim().split(" ");

int index =0;

int[][] matrix = new int[n][n];

for(int i =0; i<n; i++) {

for(int j =0; j<n; j++) {

matrix[i][j] = Integer.parseInt(input[index++]);

}

}

/\*for(int i =0; i<n; i++) {

for(int j =0; j<n; j++) {

System.out.print(matrix[i][j] + " ");

}

System.out.println();

}\*/

int d1 =0, d2 =0;

for(int i =0; i<n; i++) {

d1 += matrix[i][i];

}

int j =n-1;

for(int i = 0;i < n; i++) {

d2 += matrix[i][j];

j--;

}

System.out.println(Math.abs(d1-d2));

}

}

}