import java.util.\*;

import java.io.\*;

class HelloWorld {

public static void main(String[] args) {

Scanner obj = new Scanner (System.in);

System.out.println("Enter the number of entries:");

int n = obj.nextInt();

int[][] a=new int[10][10];

int i,j,trace=0 ;

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

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

{

System.out.println("Enter the [" + (i)+"]["+(j)+"] element of matrix A :");

a[i][j]=obj.nextInt();

}

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

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

if (i==j)

trace+=a[i][j];

System.out.println(" Trace:"+trace);

}

}