

Implement a program in C to find the sum of the main diagonal elements of a matrix.

Code-

```
#include <stdio.h>
#define m 3
#define n 3
int sum(int[m][n],int);
int main()
{
    int a[m][n],i,j;
    printf("Write elements of 3*3 matrix");
    for(i=0;i<m;i++)
    {
        for(j=0;j<n;j++)
            scanf("%d",&a[i][j]);
    }
    sum(a,m);
    return 0;
}

int sum(int x[m][n],int r)
{
    int i=0,s=0;
    while(i<r)
    {
        s=s+x[i][i];
        i++;
    }
    printf("Sum of diagonal elements=%d",s);
    return 0;
}
```

Input-

Write elements of 3*3 matrix1

2
3
4
5
6
7
8
9

Output-

Sum of diagonal elements=15

