



Code gets autosaved every



An Educational Initiative

Code, Compile & Run

Ide x +

Contest Code/Name (e.g. JULY15/PRACTICE)

Select

Open File

Custom Input

```
3 3
3 6 8
9 6 3
1 0 7
```

Status Successfully executed Date 2020-06-21 13:

Input

```
3 3
3 6 8
9 6 3
1 0 7
```

Output

```
enter no. of rows and column
Enter values to the matrix:
3 6 8
9 6 3
1 0 7
sum of principal diagonal is 16
sum of secondary diagonal is 15
```

```
1 #include<stdio.h>
2 int main()
3 {
4     int a[10][10],i,j,m,n,psum=0,ssum=0;
5     printf("enter no. of rows and column");
6     scanf("%d%d",&m,&n);
7     printf("\nEnter values to the matrix:\n");
8     for(i=0;i<m;i++)
9     {
10         for(j=0;j<n;j++)
11         {
12             scanf("%d",&a[i][j]);
13             printf("%d\t",a[i][j]);
14         }
15         printf("\n");
16     }
17     for(i=0;i<m;i++)
18     {
19         for(j=0;j<n;j++)
20         {
21             if(i==j)
22                 psum=psum+a[i][j];
23         }
24     }
25     printf("sum of principal diagonal is %d\n",psum);
26     i=0;
27     for(j=n-1;j>=0;j--)
28     {
29         ssum=ssum+a[i][j];
30         i++;
31     }
32     printf("sum of secondary diagonal is %d\n",ssum);
33 }
```

C program to implement sum of Principal diagonal & Secondary diagonal elements.

Algorithm:

Step 1: Start

Step 2: Input matrix, $psum = 0$

Step 3: for $i = 0$ to $i < m - 1; i++$

~~Step 4~~ for $j = 0$ to $j < n - 1; j++$

if $(i == j)$ then

$psum = psum + a[i][j]$

Step 4: $ssum = 0$

Step 5: $i = 0$

for $j = n - 1$ to $j \geq 0$

$ssum = ssum + a[i][j]$

$i++$

Step 6: Output $psum$ & $ssum$

Step 7: Stop

Flowchart:



