

PRACTICE

CERTIFICATION



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2D Array Diagonals in C

Problem Submissions Leaderboard Discussions

Write a C Program to read the values for a **square** 2D array and print its main/principal and secondary diagonals.

Input Format

- First line specifies the no: of rows (m) and and the no: of columns (n) in the 2D Array.
- Second line contains m*n integers that signify the values for the array.

Constraints

Make sure that the given 2D array is a **square matrix**. If it is not, then print "Error"

Output Format

• If it is not a square matrix, then print "ERROR"

Else,

- First line displays main diagonal elements.
- Second line displays **secondary** diagonal elements.

Sample Input 0

```
3 3
1 6 0 2 7 3 3 4 9
```

Sample Output 0

1 7 9

0 7 3

Explanation 0

The given matrix is,

1 6 0

2 7 3 3 4 9

So, the main diagonal elements are : 1 $7 \, 9$ and the secondary diagonal elements are : 0 $7 \, 3$

Sample Input 1

2 3 6 2 3 5 2 1

Sample Output 1

Submissions: 37 Max Score: 10 Difficulty: Medium

Rate This Challenge: 公公公公公

More

The given matrix is not a square matrix.

```
Current Buffer (saved locally, editable) & 🔊
                                                                                    C
                                                                                                                        Ö
     #include <stdio.h>
 2
     #include <string.h>
 3
     #include <math.h>
 4
     #include <stdlib.h>
 5
 6
     int main()
 7 🔻
 8 •
         int m,n,i,j,a[20][20];
 9
         scanf("%d%d",&m,&n);
10
         for(i=0;i<m;i++)
11 •
12
             for(j=0;j<n;j++)
13 🔻
14
                 scanf("%d",&a[i][j]);
15
16
17
         if(m==n)
18 🔻
19
                  for(i=0;i<m;i++)
20 🔻
21
                      for(j=0;j<n;j++)
22
23
                           if (i==j)
                              printf("%d ",a[i][j]);
24
25
26
27
                  printf("\n");
28
                  for(i=0;i<m;i++)
29 •
30
                      for(j=0;j<n;j++)
31 •
32
                           if((i+j) == (n-1))
33 🔻
                              printf("%d ",a[i][j]);
34
35
36
37
         else
38
             printf("ERROR");
39
         /\star Enter your code here. Read input from STDIN. Print output to STDOUT \star/
40 •
41
         return 0;
42
43
                                                                                                                Line: 1 Col: 1
```

<u>♣ Upload Code as File</u> Test against custom input

Run Code

Submit Code

```
Testcase 0 	✓ Testcase 1 	✓
```

Congratulations, you passed the sample test case.

Click the ${\bf Submit\ Code}$ button to run your code against all the test cases.

Input (stdin)

```
3 3
1 6 0 2 7 3 3 4 9
```

Your Output (stdout)

1 7 9 0 7 3			
Expected Output			
1 7 9 0 7 3			

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