

```
C 40_q79.c > main()
1 // Q79: Perform diagonal traversal of a matrix.
2
3 /*
4 Sample Test Cases:
5 Input 1:
6 3 3
7 1 2 3
8 4 5 6
9 7 8 9
10 Output 1:
11 1 2 4 7 5 3 6 8 9
12
13 */
14
15 #include<stdio.h>
16 int main(){
17 int r,c,i,j,k;
18 scanf("%d%d",&r,&c);
19 int a[r][c];
20 for(i=0;i<r;i++)
21 for(j=0;j<c;j++)
22 scanf("%d",&a[i][j]);
23 for(k=0;k<r+c-1;k++){
24 for(i=0;i<r;i++){
25 j=k-i;
26 if(j>=0&&j<c)printf("%d ",a[i][j]);
27 }
28 }
29 return 0;
30 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\drago\OneDrive\Desktop\C H.W> gcc .\40_q79.c

PS C:\Users\drago\OneDrive\Desktop\C H.W> ./a.exe

3 3

1 2 3

4 5 6

7 8 9

1 2 4 3 5 7 6 8 9

PS C:\Users\drago\OneDrive\Desktop\C H.W> █

```
C 40_q80.c > main()
1 // Q80: Multiply two matrices.
2
3 /*
4 Sample Test Cases:
5 Input 1:
6 2 3
7 1 2 3
8 4 5 6
9 3 2
10 7 8
11 9 10
12 11 12
13 Output 1:
14 58 64
15 139 154
16
17 */
18
19 #include<stdio.h>
20 int main(){
21     int r1,c1,r2,c2,i,j,k;
22     scanf("%d%d",&r1,&c1);
23     int a[r1][c1];
24     for(i=0;i<r1;i++)
25         for(j=0;j<c1;j++)
26             scanf("%d",&a[i][j]);
27     scanf("%d%d",&r2,&c2);
28     int b[r2][c2];
29     for(i=0;i<r2;i++)
30         for(j=0;j<c2;j++)
31             scanf("%d",&b[i][j]);
32     for(i=0;i<r1;i++){
33         for(j=0;j<c2;j++){
34             int sum=0;
35             for(k=0;k<c1;k++)
36                 sum+=a[i][k]*b[k][j];
37             printf("%d ",sum);
38         }
39         printf("\n");
40     }
41     return 0;
42 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\drago\OneDrive\Desktop\C.H.W> gcc .\40_q80.c

PS C:\Users\drago\OneDrive\Desktop\C.H.W> ./a.exe

2 3

1 2 3

4 5 6

3 2

7 8

9 10

11 12

58 64

139 154

PS C:\Users\drago\OneDrive\Desktop\C.H.W> █