

2D Arrays

Assignment Questions



Q1: Take m and n input from the user and m * n integer inputs from user and print the following:

[easy]

number of positive numbers
number of negative numbers
number of odd numbers
number of even numbers
number of 0.

Input 1:

```
1 2 -3 4
0 0 -4 2
1 -1 2 3
-4 -5 -7 0
```

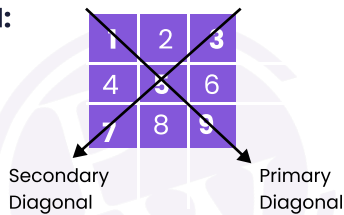
Output :

number of positive numbers = 7
number of negative numbers = 6
number of odd numbers = 7
number of even numbers = 9
number of 0 = 3

Q2: write a program to print the elements above the secondary diagonal in a user inputted square matrix.

[medium]

Input 1:

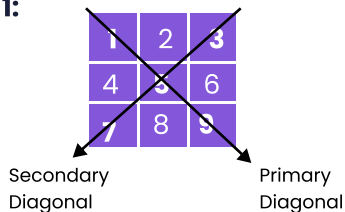


Output : 1 2 4

Q3: write a program to print the elements of both the diagonals in a user inputted square matrix in any order.

[medium]

Input 1:



Output 1: 1 3 5 7 9

Q4: Write a program to find the largest element of a given 2D array of integers.

[easy]

Input 1:

```
1 2 4 0
2 5 7 -1
4 2 6 9
```

Output : 9

Q5: Write a function which accepts a 2D array of integers and its size as arguments and displays the elements of middle row and the elements of middle column. Printing can be done in any order.

[Medium]

[Assuming the 2D Array to be a square matrix with odd dimensions i.e. 3x3, 5x5, 7x7 etc...]

Input 1:

```
1 2 3 4 5
3 4 5 6 7
7 6 5 4 3
8 7 6 5 4
1 2 3 7 8 0
```

Output : 3 5 5 6 3 7 7 6 4 3



skills