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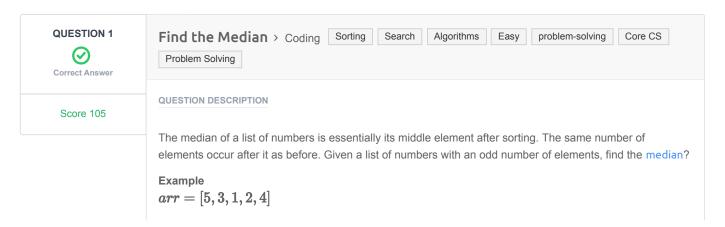
scored in **Mock Test** in 39 min 52 sec on 15 Apr 2023 18:55:08 IST

Recruiter/Team Comments:

No Comments.



problem-solving 105/195



The sorted array arr' = [1, 2, 3, 4, 5]. The middle element and the median is 3.

Function Description

Complete the findMedian function in the editor below.

findMedian has the following parameter(s):

• int arr[n]: an unsorted array of integers

Returns

• int: the median of the array

Input Format

The first line contains the integer n, the size of arr.

The second line contains n space-separated integers arr[i]

Constraints

- $1 \le n \le 1000001$
- n is odd
- $-10000 \le arr[i] \le 10000$

Sample Input 0

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

Sample Output 0

3

Explanation 0

The sorted arr = [0, 1, 2, 3, 4, 5, 6]. It's middle element is at arr[3] = 3.

CANDIDATE ANSWER

Language used: Python 3

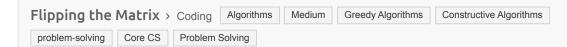
TESTCASE DIFFICULTY TYPE STATUS SCORE TIME TAKEN MEMORY USED







Score 0



OUESTION DESCRIPTION

Sean invented a game involving a $2n \times 2n$ matrix where each cell of the matrix contains an integer. He can reverse any of its rows or columns any number of times. The goal of the game is to maximize the sum of the elements in the $n \times n$ submatrix located in the upper-left quadrant of the matrix.

Given the initial configurations for q matrices, help Sean reverse the rows and columns of each matrix in the best possible way so that the sum of the elements in the matrix's upper-left quadrant is maximal.

Example

matrix = [[1, 2], [3, 4]]

- 1 2
- 3 4

It is 2×2 and we want to maximize the top left quadrant, a 1×1 matrix. Reverse row 1:

- 1 2
- 4 3

And now reverse column 0:

- 4 2
- 1 3

The maximal sum is 4.

Function Description

Complete the *flippingMatrix* function in the editor below.

flippingMatrix has the following parameters:

- int matrix[2n][2n]: a 2-dimensional array of integers

Returns

- int: the maximum sum possible.

Input Format

The first line contains an integer q, the number of queries.

The next q sets of lines are in the following format:

- The first line of each query contains an integer, n.
- Each of the next 2n lines contains 2n space-separated integers matrix[i][j] in row i of the matrix.

Constraints

```
• 1 \le q \le 16
```

- $1 \leq n \leq 128$
- $ullet 0 \leq matrix[i][j] \leq 4096$, where $0 \leq i,j < 2n$.

Sample Input

Sample Output

```
414
```

Explanation

Start out with the following $2n \times 2n$ matrix:

$$matrix = egin{bmatrix} 112 & 42 & 83 & 119 \ 56 & 125 & 56 & 49 \ 15 & 78 & 101 & 43 \ 62 & 98 & 114 & 108 \end{bmatrix}$$

Perform the following operations to maximize the sum of the n imes n submatrix in the upper-left quadrant:

2. Reverse column 2 ([83, 56, 101, 114] ightarrow [114, 101, 56, 83]), resulting in the matrix:

$$matrix = egin{bmatrix} 112 & 42 & 114 & 119 \ 56 & 125 & 101 & 49 \ 15 & 78 & 56 & 43 \ 62 & 98 & 83 & 108 \ \end{bmatrix}$$

3. Reverse row 0 ([112, 42, 114, 119] \rightarrow [119, 114, 42, 112]), resulting in the matrix:

$$matrix = egin{bmatrix} 119 & 114 & 42 & 112 \ 56 & 125 & 101 & 49 \ 15 & 78 & 56 & 43 \ 62 & 98 & 83 & 108 \end{bmatrix}$$

The sum of values in the n imes n submatrix in the upper-left quadrant is 119+114+56+125=414

CANDIDATE ANSWER

Language used: Python 3

```
\ensuremath{\text{\#}} get the length of the matrix
        n = len(matrix)
        for i in range(matrix):
             rcol = matrix[i][i+1]
14
                                              STATUS
   TESTCASE DIFFICULTY
                                TYPE
                                                            SCORE TIME TAKEN
                                                                                  MEMORY USED
  Testcase 1
                            Sample case
                                          Runtime Error
                                                               0
                                                                      0.1146 sec
                                                                                      9.41 KB
                  Easy
                             Hidden case
                                                                      0.0504 sec
                                                                                      9.42 KB
  Testcase 2
                  Easy
                                          Runtime Error
                                                               0
  Testcase 3
                  Easy
                             Hidden case
                                          Runtime Error
                                                               0
                                                                      0.1002 sec
                                                                                      9.54 KB
  Testcase 4
                             Hidden case
                                          Runtime Error
                                                                      0.0837 sec
                                                                                      9.33 KB
                  Easy
                                                               0
  Testcase 5
                             Hidden case
                                                               0
                                                                      0.0556 sec
                                                                                      9.42 KB
                  Easy
                                          Runtime Error
  Testcase 6
                  Easy
                             Hidden case
                                          Runtime Error
                                                               0
                                                                      0.0392 sec
                                                                                      9.48 KB
  Testcase 7
                  Easy
                                                               0
                                                                      0.1551 sec
                                                                                       9.4 KB
                             Hidden case
                                          Runtime Error
                                                                      0.087 sec
                                                                                      9.47 KB
  Testcase 8
                  Easy
                            Sample case
                                          Runtime Error
                                                               0
No Comments
```

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