Mock Test > pravallikajoseph20@gmail.com

Full Name: ARE JOSEPH VELANGINI PRAVALLIKA pravallikajoseph20@gmail.com Email: Test Name: **Mock Test** Taken On: 12 Aug 2025 10:39:57 IST Time Taken: 33 min 5 sec/ 40 min Invited by: Ankush 12 Aug 2025 10:39:11 IST Invited on: Skills Score: Tags Score: Algorithms 195/195 Constructive Algorithms 90/90 Core CS 195/195 Easy 105/105 Greedy Algorithms 90/90 Medium 90/90 Problem Solving 195/195 Search 105/105

100% 195/195

scored in **Mock Test** in 33 min 5 sec on 12 Aug 2025 10:39:57 IST

Recruiter/Team Comments:

No Comments.

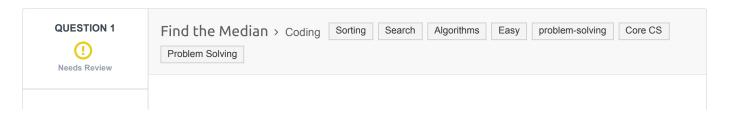
Plagiarism flagged

We have marked questions with suspected plagiarism below. Please review it in detail here -

Sorting 105/105

problem-solving 195/195

	Question Description	Time Taken	Score	Status
Q1	Find the Median > Coding	15 min 39 sec	105/ 105	()
Q2	Flipping the Matrix > Coding	16 min 11 sec	90/ 90	()



QUESTION DESCRIPTION

The median of a list of numbers is essentially its middle element after sorting. The same number of elements occur after it as before. Given a list of numbers with an odd number of elements, find the median?

Example

$$arr = [5, 3, 1, 2, 4]$$

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: C

```
#include <stdio.h>
#include <stdlib.h>

int compare(const void *a, const void *b) {
    return (*(int *)a - *(int *)b);
}

int findMedian(int arr[], int n) {
    qsort(arr, n, sizeof(int), compare);
    return arr[n/2];

int main() {
    int n;
    scanf("%d", &n);
}
```

```
int arr[n];
     for(int i = 0; i < n; i++){
           scanf("%d", &arr[i]);
     }
      printf("%d\n", findMedian(arr, n));
       return 0;
23 }
```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Sample case	Success	0	0.0084 sec	7.25 KB
Testcase 2	Easy	Hidden case	Success	35	0.0091 sec	7.38 KB
Testcase 3	Easy	Hidden case	Success	35	0.0095 sec	7.38 KB
Testcase 4	Easy	Hidden case	Success	35	0.0316 sec	7.36 KB

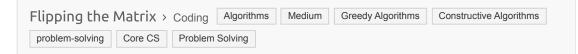
No Comments





Needs Review

Score 90



QUESTION DESCRIPTION

Sean invented a game involving a 2n imes 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

- $1 \le q \le 16$
- $1 \le n \le 128$
- $0 \leq matrix[i][j] \leq 4096$, 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] \rightarrow [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: C

1 #include <stdio.h>

```
3 int flippingMatrix(int n, int matrix[256][256]){
4
      int total = 0;
      int size = 2 * n;
      for (int i = 0; i < n; i++) {
          for(int j = 0; j < n; j + +) {
8
              int a = matrix[i][j];
               int b = matrix[i][size -1 - j];
              int c = matrix[size - 1 - i][j];
              int d = matrix[size - 1 - i][size - 1 - j];
              int maxVal = a;
14
              if(b > maxVal) maxVal = b;
              if(c > maxVal) maxVal = c;
               if(d > maxVal) maxVal = d;
              total += maxVal;
          }
      return total;
23 }
24
25 int main(){
      int q;
      scanf("%d", &q);
     while (q--) {
        int n;
          scanf("%d", &n);
         int matrix[256][256];
          for (int i = 0; i < 2 * n; i + +) {
              for(int j = 0; j < 2 * n; j++){
                  scanf("%d", &matrix[i][j]);
              }
          int result = flippingMatrix(n, matrix);
          printf("%d\n", result);
41
      }
      return 0;
43 }
```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Sample case	Success	0	0.0089 sec	7.13 KB
Testcase 2	Easy	Hidden case	Success	15	0.0282 sec	7.25 KB
Testcase 3	Easy	Hidden case	Success	15	0.0411 sec	7.75 KB
Testcase 4	Easy	Hidden case	Success	15	0.0255 sec	7.5 KB
Testcase 5	Easy	Hidden case	Success	15	0.0478 sec	7.38 KB
Testcase 6	Easy	Hidden case	Success	15	0.0338 sec	7.63 KB
Testcase 7	Easy	Hidden case	Success	15	0.0638 sec	7.63 KB
Testcase 8	Easy	Sample case	Success	0	0.0067 sec	7.25 KB

PDF generated at: 12 Aug 2025 05:45:03 UTC

No Comments