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Test Name:

**Mock Test** 

Taken On:

12 May 2023 21:20:08 IST

Time Taken:

8 min 1 sec/ 30 min

Invited by:

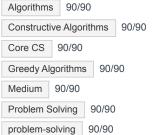
Ankush

Invited on:

12 May 2023 21:19:53 IST

Skills Score:

Tags Score:



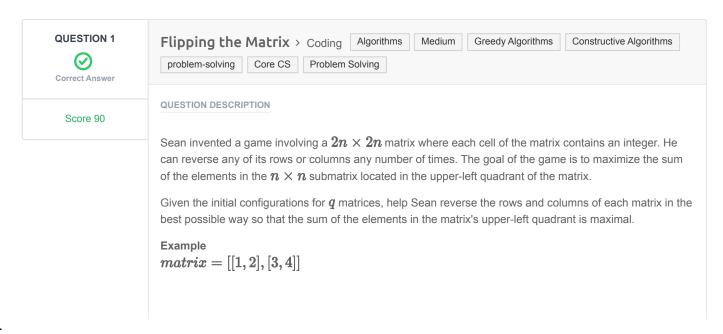
100% 90/90

scored in **Mock Test** in 8 min 1 sec on 12 May 2023 21:20:08 IST

### Recruiter/Team Comments:

No Comments.





```
1 2
3 4
```

It is  $2 \times 2$  and we want to maximize the top left quadrant, a  $1 \times 1$  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 imes 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  $n \times n$  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] ightarrow [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

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Sample case	Success	0	0.1121 sec	9.25 KB
Testcase 2	Easy	Hidden case	Success	15	0.2595 sec	11.6 KB
Testcase 3	Easy	Hidden case	Success	15	0.2167 sec	11.6 KB
Testcase 4	Easy	Hidden case	Success	15	0.1102 sec	11.6 KB
Testcase 5	Easy	Hidden case	Success	15	0.193 sec	11.6 KB
Testcase 6	Easy	Hidden case	Success	15	0.2593 sec	11.4 KB
Testcase 7	Easy	Hidden case	Success	15	0.1926 sec	11.4 KB
Testcase 8	Easy	Sample case	Success	0	0.1006 sec	9.29 KB

PDF generated at: 12 May 2023 16:00:05 UTC