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T 107 - Turning Binary Matrix

Problem Submissions

Consider a binary matrix A of size N X N.

Now, consider the following matrices:

 A^{90} - obtained by rotating **A** clockwise by 90 degrees.

A¹⁸⁰ - obtained by rotating A clockwise by 180 degrees.

A²⁷⁰ - obtained by rotating A clockwise by 270 degrees.

Note: Binary matrix implies that every element will be either 0 or 1.

Your task is to construct another binary matrix B of size $\mathbf{N} \times \mathbf{N}$ such that :

 $B_{(i,j)} = 1$ iff either $A_{(i,j)} = 1$ OR $A^{90}_{(i,j)} = 1$ OR $A^{180}_{(i,j)} = 1$ OR $A^{270}_{(i,j)} = 1$

 $B_{(i,i)} = 0$ otherwise

INPUT

Solved: 716 Attempted: 722

First line contains the size of the matrix N (1 \leq N \leq 100)

Next N lines contain N integers each (Only 0 or 1) denoting the matrix A

OUTPUT

Print N X N integers, denoting the matrix B.

Sample Input 0

```
4
0 0 0 0
0 0 0 0
0 0 1 0
1 0 0 0
```

Sample Output 0

```
1 0 0 1
0 1 1 0
0 1 1 0
1 0 0 1
```

f y in

Contest ends in 1 day 6 hours 25 minutes 58 seconds

Submissions: 565 Max Score: 50

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```
Current Buffer (saved locally, editable) &
                                                                                    Python 3
    n = int(input())
    b = []
 3 ▼for i in range(n):
         b.append(list(map(int,input().split())))
 5
 6
   vfor i in range(n):
 7
         for j in range(n):
             x = b[i][j] or b[j][n-i-1] or b[n-i-1][n-j-1] or b[n-j-1][i] print(x,end = " ")
 8
 9
         print()
10
```

Line: 10 Col: 12

<u>♣ Upload Code as File</u> Test against custom input

Run Code

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