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.
A^{180} - obtained by rotating **A** clockwise by 180 degrees.
A^{270} - 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 **N** X **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
$B_{(i,j)}$ = 0 otherwise

Solved: 716
Attempted: 722

INPUT

First line contains the size of the matrix **N** (1 ≤ N ≤ 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
```


Current Buffer (saved locally, editable) Python 3

```python
n = int(input())
b = []
for i in range(n):
    b.append(list(map(int,input().split())))

for i in range(n):
    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 = " ")
    print()
```

Line: 10 Col: 12

Upload Code as File Test against custom input Run Code Submit Code