Write a program that a 4 x 4 matrix given, display this with N spins close wise.
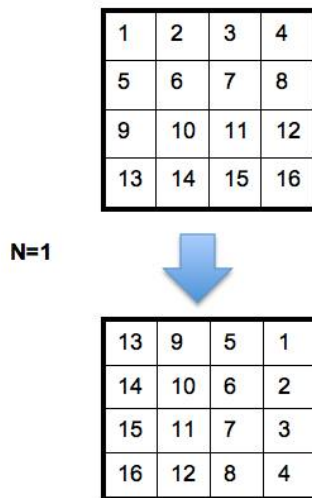
Input

The number of spins of the matrix(-10,0000 <= n <= 10,000), next the 16 numbers of the matrix

Output

The 16 integers of the matrix at the end of the N spins

Sample Input

```
1
1  2  3  4
5  6  7  8
9  10  11  12
13  14  15  16
```

Sample Output

```
13  9  5  1
14  10  6  2
15  11  7  3
16  12  8  4
```