Problem 3. Picture

Every classmate of Ivancho likes drawing square tables on the blackboard. However they don't like every random table. They love to make "beautiful square tables". A square table is beautiful when the number of rows and columns is even and the table is symmetric to the horizontal and vertical splitting it across the middle. For example, the table on the left is beautiful, while the right on is not.

1	2	3	3	2	1
4	5	6	6	5	4
7	8	9	9	8	7
7	8	9	9	8	7
4	5	6	6	5	4
1	2	3	3	2	1

1	2	3	3	2	1
4	5	6	6	5	4
7	8	9	9	8	7
7	5	9	9	8	7
4	8	6	6	5	1
1	2	3	3	2	4

In one of the breaks, someone came to Ivanchos class and changed the value of two cells in the table, which was drawn on the board. Now Ivancho asks you to write a program **picture**, which determines if it is possible that before the displacement of both cells the table was "beautiful".

Input: The first line of the input file **picture.in** contains an even number N – the number of rows and columns of the table.

$2 \leq \mathbf{N} \leq 24$

On the following N rows are written N numbers – the values of the cells in the table N*N.

Output: The output file **picture.out** must contains 1 if it is possible that the input table was "beautiful" or 0 otherwise.

TIME LIMIT – 2 sec

Note:You can scan from a file and print into a file by using an operator for that. You can use operator freopen including fstream library and adding the following two lines in the beginning of your main function:

freopen ("picture.in", "r", stdin);

freopen ("picture.out", "w" , stdout);

Example:

picture.in	picture.out
4 1 2 2 1 4 3 4 3 3 4 4 3 1 2 2 1	1