Maximum Placement

locked

Problem Submissions Leaderboard Discussions

There is N x N board. You should create algorithm to print out total placement configuration of N items on the board with restrictions as follow:

1. There is no more than one item in board for each **row**.
2. There is no more than one item in board for each **column**.
3. There is no more than one item in **all diagonal** of that item.
4. Every item is different (you can imagine that every item has its own number).

Constraint

3 ≤ N ≤ 7

Input Format

First line contains N, the **row number** and **column number** of board.

Output Format

Print **maximum** configuration number of N items placement on the board.

Sample Input

4

Sample Output

48

Explanation

For this explanation, I use N = 3 as sample input.

For N = 3, we can draw the board as follow:

0 1 2

3 4 5

6 7 8

If you put item in cell 3, you can't put any item on cell 0, 1, 4, 5, 6, 7 (describe as follow)

X X _

$ X X

X X _

So for n = 3, total configuration is 0.

Let me explain about every item is different.

X X I2

I1 X X

X X X

Configuration above is different with configuration as below:

X X I1

I2 X X

X X X

eventhough both of configuration is in the same position.

Submissions: 4
Max Score: 100
Difficulty: Medium

Rate This Challenge:

More

C

```c
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>

int main() {

    /* Enter your code here. Read input from STDIN. Print output to STDOUT */
    return 0;
}
```

Line: 1 Col: 1

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