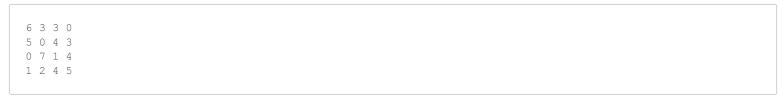
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Project Euler #166: Criss Cross

This problem is a programming version of Problem 166 from projecteuler.net

A 4×4 grid is filled with digits $d, 0 \le d \le 9$.

It can be seen that in the grid



the sum of each row and each column has the value 12. Moreover the sum of each diagonal is also 12.

In how many ways can you fill a 4×4 grid with the digits $d, 0 \le d \le n$ so that each row, each column, and both diagonals have the same sum?

Input Format

One integer is given on first line representing n

Constraints

• $0 \leqslant n \leqslant 7$

Output Format

Print one integer which is the answer to the problem.

Sample Input 0

1

Sample Output 0

34