

Project Euler #43: Sub-string divisibility

Problem Statement

This problem is a programming version of [Problem 43](#) from [projecteuler.net](#)

The number, 1406357289, is a 0 to 9 pandigital number because it is made up of each of the digits 0 to 9 in some order, but it also has a rather interesting sub-string divisibility property.

Let d_1 be the 1st digit, d_2 be the 2nd digit, and so on. In this way, we note the following:

$d_2d_3d_4$ is divisible by 2
 $d_3d_4d_5$ is divisible by 3
 $d_4d_5d_6$ is divisible by 5
 $d_5d_6d_7$ is divisible by 7
 $d_6d_7d_8$ is divisible by 11
 $d_7d_8d_9$ is divisible by 13
 $d_8d_9d_{10}$ is divisible by 17

Find the sum of all 0 to N pandigital numbers with this property.

Input Format

Input contains an integer N

Output Format

Print the answer corresponding to the test case.

Constraints

$$3 \leq N \leq 9$$

Sample Input

3

Sample Output

22212