

# Project Euler #43: Sub-string divisibility

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 1<sup>st</sup> digit,  $d_2$  be the 2<sup>nd</sup> 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