

# 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  $1^{st}$  digit,  $d_2$  be the  $2^{nd}$  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  $N$

## Constraints

$$3 \leq N \leq 9$$

## Output Format

Print the answer corresponding to the test case.

## Sample Input

3

## Sample Output

22212