

Project Euler #37: Truncatable primes



This problem is a programming version of [Problem 37](#) from [projecteuler.net](#)

The number **3797** has an interesting property. Being prime itself, it is possible to continuously remove digits from left to right, and remain prime at each stage: **3797**, **797**, **97**, and **7**. Similarly we can work from right to left: **3797**, **379**, **37**, and **3**.

Find the sum of primes that are both truncatable from left to right and right to left below N .

NOTE: **2**, **3**, **5**, and **7** are not considered to be truncatable primes.

Input Format

Input contains an integer N .

Constraints

$$100 \leq N \leq 10^6$$

Output Format

Print the answer corresponding to the test case.

Sample Input

100

Sample Output

186