

Project Euler #35: Circular primes

This problem is a programming version of [Problem 35](#) from [projecteuler.net](#)

The number, 197, is called a circular prime because all rotations of the digits: 197, 971, and 719, are themselves prime.

There are thirteen such primes below 100: 2, 3, 5, 7, 11, 13, 17, 31, 37, 71, 73, 79, and 97. Sum of which is 446

Find the sum of circular primes that are below N ?

Input Format

Input contains an integer N

Output Format

Print the answer corresponding to the test case.

Constraints

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

Sample Input

100

Sample Output

446