# **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, \text{ and } 97\$. Sum of which is \$446\$

Find the sum of circular primes that are below \$N\$?

### **Note**

Rotations can exceed \$N\$.

### **Input Format**

Input contains an integer \$N\$

### **Output Format**

Print the answer corresponding to the test case.

### **Constraints**

\$10 \le N \le 10^6\$

## Sample Input

100

# **Sample Output**

446