Special Number

Problem ID: specialnumber

Time limit: 1 second

A number is special if the sum of its digits is a prime number. Given an integer N, count the number of positive integer pairs (x, y) where both x and y are special and $x + 2y = N$.

Input

The first line of input contains the one integer N ($1 \leq N \leq 10^{15}$).

Output

Output a single number, the number of satisfied pairs.

Sample Input 1	Sample Output 1
100	7