Problem E − Prime Words

Time Limit: 1 second

A prime number is a number that has only two divisors: itself and the number one. Examples of prime numbers are: 1, 2, 3, 5, 17, 101 and 10007.

In this problem you should read a set of words, each word is composed only by letters in the range **a-z** and **A-Z**. Each letter has a specific value, the letter **a** is worth **1**, letter **b** is worth **2** and so on until letter **z** that is worth **26**. In the same way, letter **A** is worth **27**, letter **B** is worth **28** and letter **Z** is worth **52**.

You should write a program to determine if a word is a prime word or not. A word is a prime word if the sum of its letters is a prime number.

Input

The input consists of a set of words. Each word is in a line by itself and has **L** letters, where $\mathbf{1 \leq L \leq 20}$. The input is terminated by enf of file (EOF).

Output

For each word you should print: **It is a prime word.**, if the sum of the letters of the word is a prime number, otherwise you should print: **It is not a prime word.**.

Sample Input

```
UFRN
contest
AcM
```

Sample Output

```
It is a prime word.
It is not a prime word.
It is not a prime word.
```

Problem setter: Sérgio Queiroz de Medeiros