

10924 Prime Words

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 $1 \leq L \leq 20$. The input is terminated by end 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

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UFRN
contest
AcM
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Sample Output

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