

Unique

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 256 megabytes

Etoo is very tired, so he asked you to solve this assignment for him. It goes as follows:

Given a string S consisting of lower-case latin letters, find the **first non-repeating character** in it and print its index (**zero-based**). If no non-repeating letter exists, print -1 .

Etoo will be thankful if you solve this assignment for him.

Input

The only line of input contains a non-empty string S whose length is defined as $|S|$ were $(1 \leq |S| \leq 10^5)$.

Output

The zero-based index of the first non-repeating character if found and -1 otherwise.

Example

standard input	standard output
acmascis	2

Note

In this test case: m is the first non-repeating character in the string, its zero-based index is 2.