Auto-Completion

The portal developer wants to add a search autocomplete function. The developer first wants to learn search keywords entered by its users and then ultimately make suggestions (queries) for its users. For example, if '*go*' is entered by the first user, the function will suggest the word 'go' to the next user the second user typed '*g*'. This reduces the work of users - the second user does not need to type '*o*'! In addition, the function does not make suggestions until it narrows down to one suggestion (see the example below).

For example, when the learned words were ['hello', 'heat', 'hi'] and if another user wants to search the same set of keywords, the user just needs to search the followings:

- search 'hello', the user only needs to enter up to 'hel'
- search 'heat', the user only needs to enter up to 'hea'
- search 'hi', user needs to enter 'hi'

Therefore, to search the learned words one by one, user must enter 8 characters in total.

Input:
> One line that contains list of words with comma separated.
> There will be no repeated word in the list, and all words are with lowercase.

Output:
> The number of characters must enter to the search all words in list.

Sample:

No.	Sample Input	Sample Output
1	hi	1
2	hello,heat,hi	8
3	ab,abc	5
4	this,is,the,sample,input	11
5	mammoth,troubled,morning,discuss,river,confess,sea,drum,discussion	25