Space Jazz

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	256 megabytes

The Space Team have disguised themselves as the inhabitants of a backwater planet known as "Earth". During their stay they have taken an interest in the music of these so called humans, particularly an obscure genre known as "space jazz". Instead of being played on an ordinary scale, space jazz is played on a scale of 26 notes, labelled 'a' to 'z'. A space jazz composer writes a piece of space jazz in the following way. They start with an empty sheet of paper. They then choose a particular note from 'a' to 'z' and write it down twice. They then repeatedly choose a note (it could be the same or different from the previous) and write it down twice between two adjacent notes. So, for example, a composer might start by writing 'gg', then add 'oo' to make 'goog', then add 'aa' to make 'aagoog', and so on.

The Space Team wants to write down some space jazz so they can try playing it themselves. The problem is that all the performances they listen to leave out notes. Given the notes played in a performance of space jazz, help them figure out the minimum number of notes that were left out, given that the original piece was a valid space jazz composition.

Input

A single line containing a string of lower case English letters, indicating the performance to be analysed.

Output

A single integer, the minimum number of notes the performer must have left out.

Constraints

Let N be the length of the string. Then $1 \leq N \leq 500$.

Subtask 1 (points: 14)

For any note, all occurrences of that note in the performance are adjacent to each other.

Subtask 2 (points: 18)

$N \leq 12$

Subtask 3 (points: 18)

$N \leq 40$

Subtask 4 (points: 20)

$N \leq 100$

Subtask 5 (points: 30)

No additional restrictions.

Examples

standard input	standard output
aagog	1