

A. Postcards and photos

time limit per test: 2 seconds

memory limit per test: 256 megabytes

input: standard input

output: standard output

Polycarpus has postcards and photos hung in a row on the wall. He decided to put them away to the closet and hang on the wall a famous painter's picture. Polycarpus does it like that: he goes from the left to the right and removes the objects consecutively. As Polycarpus doesn't want any mix-ups to happen, he will not carry in his hands objects of two different types. In other words, Polycarpus can't carry both postcards and photos simultaneously. Sometimes he goes to the closet and puts the objects there, thus leaving his hands free. Polycarpus must put **all** the postcards and photos to the closet. He cannot skip objects. What minimum number of times he should visit the closet if he cannot carry more than 5 items?

Input

The only line of the input data contains a non-empty string consisting of letters "C" and "P" whose length does not exceed 100 characters. If the i -th character in the string is the letter "C", that means that the i -th object (the numbering goes from the left to the right) on Polycarpus' wall is a postcard. And if the i -th character is the letter "P", then the i -th object on the wall is a photo.

Output

Print the only number — the minimum number of times Polycarpus has to visit the closet.

Examples

input
CPCPCPC
output
7

input
CCCCCPPPPP
output
4

input
CCCCCPCPPPPPPPP
output
6

input
CCCCCCCCC
output
2

Note

In the first sample Polycarpus needs to take one item to the closet 7 times.

In the second sample Polycarpus can first take 3 postcards to the closet; then 3 more. He can take the 6 photos that are left in the similar way, going to the closet twice.

In the third sample Polycarpus can visit the closet twice, both times carrying 3 postcards. Then he can take there 2 photos at once, then one postcard and finally, he can carry the last 10 photos if he visits the closet twice.

→ Attention

Package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then value 800 ms will be displayed and used to determine the verdict.

Codeforces Beta Round #98 (Div. 2)

Finished

→ Virtual participation

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In the fourth sample Polycarpus can visit the closet twice and take there all 10 postcards (5 items during each go).

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