Problem K: Keeping Keys
Time limit: 1 second

At the Olympic Media Centre, an eco-friendly printer is provided to print schedules and results. In order to reduce the ink consumption, it's meant to charge 1 cent for each lowercase letter and 2 cents for uppercase letters. But you've found a glitch! It seems to not charge per letter, but per key pressed on the attached keyboard. As a skilled typist, you realize that you can hold a key to type any number of the corresponding character for a single cent. Furthermore, you realize that the cost for capital letters is implemented by using the cost of pressing the character's key and the cost of pressing the shift key. Finally, a space character can be typed by pressing the space bar, and this can be done even while holding shift (pressing the space bar costs 1 cent as well).

Sample 5 printed using the eco-friendly printer.

What is the minimum cost in cents you will be charged by the printer system if you use the printer as efficiently as possible? You can hold and release keys in any combination you want.

Input

The input consists of:
- One line with a string s ($1 \le |s| \le 1000$), consisting solely of the characters 'a' to 'z' and 'A' to 'Z' as well as spaces. The line neither starts nor ends with a space (but the input ends with a line break, which does not need to be paid).

Output

Output the minimum cost in cents needed to print the text.

Sample Input 1	Sample Output 1
Hello	5

Sample Input 2	Sample Output 2
AAAAAAAAAA	2

Sample Input 3	Sample Output 3
Buy Llamas	11

Sample Input 4	Sample Output 4
A AaA	5

Sample Input 5

The RUNNERS set new world records

Sample Output 5

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