Problem J. Juliet Unifies Ones

Time limit: 2 seconds
Memory limit: 1024 megabytes

We call a binary string (consisting of ones and zeros) *unified* if all the ones form a contiguous (possibly empty) interval without any zeros in between. Examples of such strings are `0011110`, `1`, and `0000`. However, the binary strings `101` and `00100011` are not unified.

Juliet has a binary string S, and she is willing to remove some characters to make the string unified. When Juliet removes a character, the remaining characters slide to fill the gap.

How many characters must be removed from S to make the remaining characters form a unified binary string?

Input

The input consists of a single line containing the string S ($1 \le |S| \le 50$, $S_i =$ '`0`' or $S_i =$ '`1`').

Output

Output a single integer – the minimum possible number of removed characters.

Example

standard input	standard output
00011011001	2

Note

In the string `00011011001`, Juliet can remove two underlined characters to obtain the unified string `000111100`.