

Contest Duration: 2025-05-24(Sat) 08:00 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250524T2100&p1=248>) - 2025-05-24(Sat) 09:40 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250524T2240&p1=248>) (local time) (100 minutes)

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C - Security 2

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Time Limit: 2 sec / Memory Limit: 1024 MB

Score : 300 points

Problem Statement

At the entrance of AtCoder Inc., there is a special pass-code input device. The device consists of a screen displaying one string, and two buttons.

Let t be the string shown on the screen. Initially, t is the empty string. Pressing a button changes t as follows:

- Pressing **button A** appends 0 to the end of t .
- Pressing **button B** replaces every digit in t with the next digit: for digits 0 through 8 the next digit is the one whose value is larger by 1 ; the next digit after 9 is 0 .

For example, if t is 1984 and button A is pressed, t becomes 19840 ; if button B is then pressed, t becomes 20951 .

You are given a string S . Starting from the empty string, press the buttons zero or more times until t coincides with S . Find the minimum number of button presses required.

Constraints

- S is a string consisting of $0, 1, 2, 3, 4, 5, 6, 7, 8$, and 9 .

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- $1 \leq |S| \leq 5 \times 10^5$, where $|S|$ is the length of S .

Input

The input is given from Standard Input in the following format:

S

Output

Output the answer.

Sample Input 1

Copy

21

Copy

Sample Output 1

Copy

4

Copy

The following sequence of presses makes t equal to 21.

1. Press button A. t becomes 0.
2. Press button B. t becomes 1.
3. Press button A. t becomes 10.
4. Press button B. t becomes 21.

It is impossible to obtain 21 with fewer than four presses, so output 4.

Sample Input 2

Copy

407

Copy

Sample Output 2

Copy

17

Copy

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Sample Input 3

[Copy](#)

```
2025524202552420255242025524
```

[Copy](#)

Sample Output 3

[Copy](#)

```
150
```

[Copy](#)

Language

Python (CPython 3.11.4) ▼

Source Code

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1 |

* at most 512 KiB

* Your source code will be saved as `Main.extension`.



Success!

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#telegram)

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