

## C. George and Number

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

George is a cat, so he really likes to play. Most of all he likes to play with his array of positive integers  $b$ . During the game, George modifies the array by using special changes. Let's mark George's current array as  $b_1, b_2, \dots, b_{|b|}$  (record  $|b|$  denotes the current length of the array). Then one change is a sequence of actions:

- Choose two distinct indexes  $i$  and  $j$  ( $1 \leq i, j \leq |b|$ ;  $i \neq j$ ), such that  $b_i \geq b_j$ .
- Get number  $v = \text{concat}(b_i, b_j)$ , where  $\text{concat}(x, y)$  is a number obtained by adding number  $y$  to the end of the decimal record of number  $x$ . For example,  $\text{concat}(500, 10) = 50010$ ,  $\text{concat}(2, 2) = 22$ .
- Add number  $v$  to the end of the array. The length of the array will increase by one.
- Remove from the array numbers with indexes  $i$  and  $j$ . The length of the array will decrease by two, and elements of the array will become re-numbered from 1 to current length of the array.

George played for a long time with his array  $b$  and received from array  $b$  an array consisting of exactly one number  $p$ . Now George wants to know: what is the maximum number of elements array  $b$  could contain originally? Help him find this number. Note that originally the array could contain only **positive** integers.

### Input

The first line of the input contains a single integer  $p$  ( $1 \leq p < 10^{100000}$ ). It is guaranteed that number  $p$  doesn't contain any leading zeroes.

### Output

Print an integer — the maximum number of elements array  $b$  could contain originally.

### Examples

input
9555
output
4

input
10000000005
output
2

input
800101
output
3

input
45
output
1

<b>input</b>
10000000000000001223300003342220044555
<b>output</b>
17

<b>input</b>
19992000
<b>output</b>
1

<b>input</b>
310200
<b>output</b>
2

### Note

Let's consider the test examples:

- Originally array  $b$  can be equal to  $\{5, 9, 5, 5\}$ . The sequence of George's changes could have been:  $\{5, 9, 5, 5\} \rightarrow \{5, 5, 95\} \rightarrow \{95, 55\} \rightarrow \{9555\}$ .
- Originally array  $b$  could be equal to  $\{1000000000, 5\}$ . Please note that the array  $b$  cannot contain zeros.
- Originally array  $b$  could be equal to  $\{800, 10, 1\}$ .
- Originally array  $b$  could be equal to  $\{45\}$ . It cannot be equal to  $\{4, 5\}$ , because George can get only array  $\{54\}$  from this array in one operation.

Note that the numbers can be very large.