PROBLEMS   SUBMIT CODE   MY SUBMISSIONS   STATUS   STANDINGS   CUSTOM INVOCATION

# M. Nikita and string

time limit per test: 2 seconds
memory limit per test: 256 megabytes

One day Nikita found the string containing letters "a" and "b" only.

Nikita thinks that string is beautiful if it can be cut into $3$ strings (possibly empty) without changing the order of the letters, where the $1$-st and the $3$-rd one contain only letters "a" and the $2$-nd contains only letters "b".

Nikita wants to make the string beautiful by removing some (possibly none) of its characters, but without changing their order. What is the maximum length of the string he can get?

## Input
The first line contains a non-empty string of length not greater than $5\,000$ containing only lowercase English letters "a" and "b".

## Output
Print a single integer — the maximum possible size of beautiful string Nikita can get.

## Examples

| input | Copy |
|---|---|
| abba | |

| output | Copy |
|---|---|
| 4 | |

| input | Copy |
|---|---|
| bab | |

| output | Copy |
|---|---|
| 2 | |

## Note
It the first sample the string is already beautiful.

In the second sample he needs to delete one of "b" to make it beautiful.

**→ Group Contests**  ∨

- Juniors Phase 1 Practice #5 (Bitmask, Bitset, Bits)
- Juniors Phase 1 Practice #4 ( Binary search , Two pointers )
- Juniors Phase 1 Practice #3 ( STL 2 )
- Juniors Phase 1 Practice #2 ( STL 1 )
- Juniors Phase 1 Practice #1 ( Prefix sum , Frequency Array )

**Juniors Phase 1 Practice #1 ( Prefix sum , Frequency Array )**

**Finished**

Practice

⭐

**→ Virtual participation**  ∨

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

[ Start virtual contest ]

**→ Submit?**

Language:  [ GNU G++20 13.2 (64 bit, win ∨ ]

Choose file:  [ Choose File ] No file chosen

[ Submit ]

**→ Last submissions**

| Submission | Time | Verdict |
|---|---|---|
| 246916684 | Feb/18/2024 00:06 | Accepted |
| 246736945 | Feb/17/2024 02:41 | Wrong answer on test 3 |
| 246293729 | Feb/14/2024 01:37 | Wrong answer on test 2 |

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