All submissions for this problem are available.

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Mike likes strings. He is also interested in algorithms. A few days ago he discovered for himself a very nice problem:

*You are given an AB-string **S**. You need to count the number of substrings of S, which have an equal number of 'A'-s and 'B'-s.*

Do you know how to solve it? Good. Mike will make the problem a little bit more difficult for you.

*You are given an ABC-string **S**. You need to count the number of substrings of S, which have an equal number of 'A'-s, 'B'-s and 'C'-s.*

A string is called AB-string if it doesn't contain any symbols except 'A' or 'B'. A string is called ABC-string if it doesn't contain any symbols except 'A', 'B' or 'C'.

Input

The first line of the input contains an ABC-string **S**.

Output

Your output should contain the only integer, denoting the number of substrings of **S**, which have an equal number of 'A'-s, 'B'-s and 'C'-s.

The answer can go above a 32-bit integer. Please, use 64-bit integers for storing and processing data.

Constraints

1 ≤ |S| ≤ 1 000 000; where |S| denotes the length of the given ABC-string.

Example

```
Input:
ABACABA

Output:
2
```

Time Limit:	2 secs
Source Limit:	50000 Bytes
Languages:	ADA, ASM, BASH, BF, C, C99 strict, CAML, CLOJ, CLPS, CPP 4.3.2, CPP 6.3, CPP14, CS2, D, ERL, FORT, FS, GO, HASK, ICK, ICON, JAVA, JS, LISP clisp, LISP sbcl, LUA, NEM, NICE, NODEJS, PAS fpc, PAS gpc, PERL, PERL6, PHP, PIKE, PRLG, PYTH, PYTH 3.5, RUBY, SCALA, SCM guile, SCM qobi, ST, TCL, TEXT, WSPC

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CodeChef was created as a platform to help programmers make it big in the world of algorithms, **computer programming** and **programming**
hard to revive the geek in you by hosting a **programming contest** at the start of the month and another smaller programming challenge in the m
have training sessions and discussions related to **algorithms**, **binary search**, technicalities like **array size** and the likes. Apart from provid
competitions, CodeChef also has various algorithm tutorials and forum discussions to help those who are new to the world of **computer progra**

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Try your hand at one of our many practice problems and submit your solution in a language of your choice. Our **programming contest** ju
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