

6488 Tandem Repeats

Tandem Repeats occur in DNA when a pattern of one or more nucleotides is repeated, and the repetitions are directly adjacent to each other. For example, consider the sequence:

ATTCGATTTCGATTTCG

This contains 9 Tandem Repeats:

```
ATTCGATTTCGATTTCG
ATTCGATTTCGATTTCG
ATTCGATTTCGATTTCG
ATTCGATTTCGATTTCG
ATTCGATTTCGATTTCG
ATTCGATTTCGATTTCG
ATTCGATTTCGATTTCG
ATTCGATTTCGATTTCG
ATTCGATTTCGATTTCG
```

Given a nucleotide sequence, how many *Tandem Repeats* occur in it?

Input

There will be several test cases in the input. Each test case will consist of a single string on its own line, with from 1 to 100,000 capital letters, consisting only of 'A', 'G', 'T' and 'C'. This represents a nucleotide sequence. The input will end with a line with a single '0'.

Output

For each test case, output a single integer on its own line, indicating the number *Tandem Repeats* in the nucleotide sequence. Output no spaces, and do not separate answers with blank lines.

Sample Input

```
AGGA
AGAG
ATTCGATTTCGATTTCG
0
```

Sample Output

```
1
1
9
```