

Problem: Mars Exploration

Sami's spaceship crashed on Mars! She sends sequential `sos` messages to Earth for help.



Letters in some of the `sos` messages are altered by cosmic radiation during transmission. Given the signal received by Earth as a string, `s`, determine how many letters of Sami's `sos` have been changed by radiation.

Input Format

There is one line of input: a single string, `s`.

Note: As the original message is just `sos` repeated `t` times, `s`'s length will be a multiple of 3.

Constraints

- `s`
- `s`
- `s` will contain only uppercase English letters.

Output Format

Print the number of letters in Sami's message that were altered by cosmic radiation.

Sample Input 0

```
SOSSPSSQSSOR
```

Sample Output 0

```
3
```

Sample Input 1

```
SOSSOT
```

Sample Output 1

1

Explanation

Sample 0

= **SOSSPSSQSSOR**, and signal length . Sami sent sos messages (i.e.:).

Expected signal: **SOSSOSSOSSOS**

Recieved signal: **SOSSPSSqSSOR**

We print the number of changed letters, which is .

Sample 1

= **SOSSOT**, and signal length . Sami sent sos messages (i.e.:).

Expected Signal: **SOSSOS**

Received Signal: **SOSSOT**

We print the number of changed letters, which is .

Solution

```
static int marsExploration(String s)
{
    int length = s.length();
    int counter=0;
    for(int i=0; i<length; i++)
    {
        if( (i+1)%3==0 )      { if( s.charAt(i)!='S' ) { counter++; } }
        else if( (i+1)%3==1 ) { if( s.charAt(i)!='S' ) { counter++; } }
        else if( (i+1)%3==2 ) { if( s.charAt(i)!='O' ) { counter++; } }
    }
    return counter;
}
```

Elegant Solution

```
public static int countChanges(String message) {
    String sos = "SOS";
    int count = 0;
    for (int i = 0; i < message.length(); i++) {
        if (message.charAt(i) != sos.charAt(i % 3)) count++;
    }
    return count;
}
```

~Anshul AgGarwal