HackerRank Prepare > Interview Preparation Kits > 3 Months Preparation Kit > Week 2 > Mars Exploration

A space explorer's ship crashed on Mars! They send a series of 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 the SOS message have been changed by radiation.

# Example

s = 'SOSTOT'

The original message was SOSSOS. Two of the message's characters were changed in transit.

#### **Function Description**

Complete the marsExploration function in the editor below.

marsExploration has the following parameter(s):

• string s: the string as received on Earth

#### Returns

• int: the number of letters changed during transmission

### **Input Format**

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

#### Constraints

- $1 \leq \text{ length of } s \leq 99$
- length of s modulo 3 = 0
- **s** will contain only uppercase English letters, ascii[A-Z].

# Explanation

## Sample 0

S = **SOSSPSSQSSOR**, and signal length |S|=12. Sami sent 4 SOS messages (i.e.: 12/3=4).

Expected signal: **SOSSOSSOSSOS** 

Recieved signal: **SOSS**P**SS**Q**SSO**R

We print the number of changed letters, which is  $\bf 3$ .

#### Sample 1

S = **SOSSOT**, and signal length |S|=6. Sami sent **2** SOS messages (i.e.: 6/3=2).

Expected Signal: **SOSSOS** 

Received Signal: **SOSSO**T

We print the number of changed letters, which is  ${\bf 1}$ .

```
# Complete the 'marsExploration' function below.
     # The function is expected to return an INTEGER.
     # The function accepts STRING s as parameter.

∨ def marsExploration(s):
         # write your code here
         message = 'SOS'
         result = 0
         for idx in range(len(s)):
             if s[idx] != message[idx%3]:
                result += 1
         return result
    v if __name__ == '__main__':
         fptr = open(os.environ['OUTPUT_PATH'], 'w')
         s = input()
         result = marsExploration(s)
         fptr.write(str(result) + '\n')
         fptr.close()
                                                                                                           Line: 25 Col: 18
                                                                                                            Submit Code
                                                                                                Run Code
 Test against custom input
 Congratulations
 You solved this challenge. Would you like to challenge your friends? f in
⊘ Test case 0
                     Compiler Message
                      Success
Download
                     Input (stdin)
SOSSPSSQSSOR
Expected Output
                                                                                                              Download
⊘ Test case 4 △
```