Replace Letters in a String

A string consisting of the letters **x**, **y** and **z**. We can only change them by the following operation:

- Replace any two adjacent distinct characters with the third character.

Find the length of the shortest string through applying this action as much as necessary.

For example, given the string **xyx** we can reduce it to a 1 character string by replacing **xy** with **z** and **zx** with **y**:

xyx -> zx -> y

Input Format

The first line contains the number of test cases ***t***.

Each of the next ***t*** lines contains a string ***s*** to process.

Sample

3

zxy

yzxy

zzzzz

Constraints

1 <= t <= 100 1 < |s| <= 100

Output Format

For each test case, print the length of the shortest string on a new line.

2
1
5

Sample Input 0

```
3
zxy
yzxy
zzzzz
```

Sample Output 0

```
2
1
5
```

Contest ends in 31 minutes

Submissions: 106
Max Score: 50
Difficulty: Advanced

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Current Buffer (saved locally, editable)

Python 3

```
#!/bin/python3

import math
import os
import random
import re
import sys

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

def replaceLetters(s):
    # Write your code here

if __name__ == '__main__':
    fptr = open(os.environ['OUTPUT_PATH'], 'w')

    t = int(input().strip())

    for t_itr in range(t):
        s = input()

        result = replaceLetters(s)

        fptr.write(str(result) + '\n')

    fptr.close()

```

Line: 1 Col: 1

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