

Another Contest 5 Problem 2 - Great Graffiti

Time limit: 1.0s **Memory limit:** 256M

Tudor is walking around the streets of Hong Kong when he sees some graffiti. He wishes to augment the graffiti so that the string `DMOJ` appears somewhere in the graffiti.

The graffiti is a string of letters. With a single can of paint, Tudor can insert one letter anywhere in the string.

Compute the minimum number of cans of paint Tudor needs to buy so that he can make `DMOJ` appear as a substring somewhere in the graffiti.

Constraints

$$1 \leq |S| \leq 4$$

S will only contain letters from the string `DMOJ`.

Input Specification

The first and only line of input contains a single string, S .

Output Specification

Output the minimum number of cans of paint Tudor must buy.

Sample Input

```
MOJ
```

Sample Output

```
1
```