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Close Encounters Of The String Kind

8 points

Introduction

An unexpected event has happened to mankind! It has been confirmed that a radio signal has been received from outer space. The signal does not contain any musical tones like in science-fiction movies. Instead, it is formed by a series of strings of characters containing only single digit numbers, letters and the number sign or hash (#).

These strings are being analyzed by top scientists in the world and the only clue up to now is that a strange pattern has been found. That is, there are exactly 3 hashes between a pair of two digits that add up to the number 10, as in these examples:

```
dhj1###9Adkjkldj
```

```
mcvnjkd8##j#2dkL
```

```
aBc4thE#hjsldf#dJ#6dkjFkd#
```

Not all the messages follow this pattern. To quickly advance in this investigation a computer will be used to classify all the strings that are been received. Your help is key to advancing the investigation. Can you code a program that detects if a given message follows the alien pattern observed?

Note that the received message has been pre-processed to split it in smaller strings containing only one possible alien message: if during the analysis you find a *failure*, you don't need to keep analyzing the string for potential new good patterns. For example: this string is not a valid input: `dj1#k###9adkjkldjdhj1###9adkjkldj`, so your program doesn't need to consider it.

Input

The alien string pattern to be processed.

Output

True is printed when the pattern with exactly 3 hashes between a pair of two digits that add up to 10 is detected. Otherwise just print False.

Example 1

Input

```
dhj1###9adkjkldj
```

Output

True

Example 2

Input

```
dj1#k###9adkjkldj
```

Output

False

Example 3

Input

```
opdhj3#kdf##6adldj
```

Output

False

