Incorrect Regex

You are given a string S.

Your task is to find out whether S is a valid regex or not.

Input Format

The first line contains integer T, the number of test cases. The next T lines contains the string S.

Constraints

0 < T < 100

Output Format

Print "True" or "False" for each test case without quotes.

Sample Input

```
2
.*\+
.*+
```

Sample Output

```
True
False
```

Explanation

*\+ : Valid regex.

*+: Has the error multiple repeat. Hence, it is invalid.