Introduction to Regex Module

re

A regular expression (or RegEx) specifies a set of strings that matches it.

A regex is a sequence of characters that defines a search pattern, mainly for the use of string pattern matching.

The **re.search()** expression scans through a string looking for the *first* location where the regex pattern produces a match.
It either returns a `MatchObject` instance or returns `None` if no position in the string matches the pattern.

Code

```
>>> import re
>>> print bool(re.search(r"ly","similarly"))
True
```

The **re.match()** expression only matches at the *beginning* of the string.
It either returns a `MatchObject` instance or returns `None` if the string does not match the pattern.

Code

```
>>> import re
>>> print bool(re.match(r"ly","similarly"))
False
>>> print bool(re.match(r"ly","ly should be in the beginning"))
True
```

Task
You are given a string N.
Your task is to verify that N is a floating point number.

In this task, a valid float number must satisfy *all* of the following requirements:

> Number can start with `+`, `-` or `.` symbol.
For example:
✔ +4.50
✔ -1.0
✔ .5
✔ -.7
✔ +.4
✖ `-+4.5`

> Number must contain *at least* 1 decimal value.
For example:
✖ `12.`

✔12.0

> Number must have exactly one `.` symbol.
> Number must not give any exceptions when converted using $float(N)$.

Input Format

The first line contains an integer T, the number of test cases.
The next T line(s) contains a string N.

Constraints

$0 < T < 10$

Output Format

Output *True* or *False* for each test case.

Sample Input

```
4
4.0O0
-1.00
+4.54
SomeRandomStuff
```

Sample Output

```
False
True
True
False
```

Explanation

$4.0O0$: *O* is not a digit.
-1.00: is valid.
$+4.54$: is valid.
SomeRandomStuff: is not a number.