

Alien Username

In a galaxy far far away, a planet different from ours, computer usernames follow a different format.

- It has to begin with either an underscore '_' (ascii value 95) or a dot '.' (ascii value 46)
- It has to be immediately followed by one or more occurrences of digits numbered 0-9
- It can then have letters, both uppercase or lowercase, 0 or more in number
- It can then end with an optional '_' (ascii value 95)

Your task is to validate whether a username is valid or not

Input Format

First line contains N, N usernames follow each in a newline.

Constraints

$1 \leq N \leq 100$

Output Format

For every username, print

VALID

if you think the username is correct and print

INVALID

otherwise.

Sample Input

```
3
_0898989811abced_
_abce
_09090909abcD0
```

Sample Output

VALID
INVALID
INVALID

Explanation

The first username is valid as it passes all the 3 constraints as mentioned above.
The second username is invalid as '_' is not immediately followed by a number.
The third username is also invalid as letters are immediately followed by a number which is not a valid format.

Viewing Submissions

You can view others' submissions if you solve this challenge. [Navigate to the challenge leaderboard.](#)