Utopian Identification Number

Problem Statement

A new identification number is given for every Citizen of the Country Utopia and it has the following format.

- The string must begin with between 0-3 (inclusive) lowercase alphabets.

- Immediately following the letters, there must be a sequence of digits (0-9). The length of this segment must be between 2 and 8, both inclusive.

- Immediately following the numbers, there must be atleast 3 uppercase letters.

Your task is to find out if a given identification number is valid or not.

Input Format

The first line contains N, N lines follow each line containing an identification number.

Constraints

```
1 <= N <= 100
```

Output Format

For every identification number, please print

```
VALID
```

if the identification number is valid and print

```
INVALID
```

otherwise.

Sample Input

```
2
abc012333ABCDEEEE
0123AB
```

Sample Output

```
VALID
INVALID
```

Explanation

The first testcase is valid as it starts with 3 letters, followed by 3 integers (max of 8 and min of 2) and ends

with more than 3 uppercase letters.
The second testcase is invalid as it satisfies the first (atleast 0 lowercase alphabets) and the second condition (alteast 2 integers) but fails on the third condition.

Viewing Submissions

You can view others' submissions if you solve this challenge. Navigate to the challenge leaderboard.