11. Weak Passwords

Program Name: Weak.java Input File: weak.dat

The technology department requires that teacher passwords cannot be "weak" passwords. A password is considered to be "weak", if one of the following is true about the password:

- Does not contain at least one digit.
- Does not contain at least one vowel.
- Does not contain at least one consonant.
- Contains three or more consecutive vowels.
- Does not contain at least 8 characters.

Note:

- Vowels are A, E, I, O, and U. All other letters are consonants. Case is ignored.
- Digits are 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

It is your job to write a program to see if a given password is considered to be a "weak" password.

Input

The first line of input will contain a single integer n that indicates the number of passwords to follow. Each the following n lines will contain a single string of keyboard characters with no spaces.

Output

For each password, on a single line print "WEAK" if the password is considered "weak" by the criteria listed above or print "VALID" if it is not "weak".

Example Input File

4
MARY_HADALITTLElamb
MARY_HAD1LITTLElamb
{RogerRabbit2}
Raei0uST

Example Output to Screen

WEAK VALID VALID WEAK