

Problem Statement

Take in a list of [words](#) and sort them by how many points they would earn in the game of Scrabble, with the lowest scoring [words](#) being outputted first. If two [words](#) have the same Scrabble score, then they should be sorted in alphabetical order. Letters in Scrabble earn the following points:

1 point – **A E I O U L N S T R**

2 points – **D G**

3 points – **B C M P**

4 points – **F H V W Y**

5 points – **K**

8 points – **J X**

10 points – **Q Z**

Input Format

The first line is an int n indicating the quantity of strings that follow

This is followed by n [words](#) to be sorted, each on a separate line

Output Format

Output each of the [words](#) on a separate line, sorted by their Scrabble scores, with the lowest scoring [words](#) coming first

Constraints

$0 \leq n \leq 100$

Sample Input

3

one

two

three

Sample Output

one

two

three