



D2: Medium 20 pt

D3: Hard 65 pt

Commercial Operations

E1: Easy 20 pt

E2: Medium 40 pt

E3: Hard 50 pt

Auto-correct

☒ F1: Easy 5 pt

F2: Medium 15 pt

F3: Hard 55 pt

Micro Kitchens

G1: Easy 5 pt

G2: Medium 25 pt

G3: Hard 50 pt

ZigZag

H1: Easy 10 pt

H2: Medium 20 pt

H3: Hard 55 pt

Types

I1: Easy 20 pt

I2: Medium 50 pt

I3: Hard 80 pt

Problem F1: Auto-correct - Easy

5 points

[Problem](#)[My Submissions](#)

Spelling is hard and spelling on a keyboard is even harder - this is what you realized after your best friend Alex gave you their latest school essay to proof-read. Luckily you're a good friend, and what you decided to return was not only a print-out of Alex's essay, all in red, but also a script autocorrecting text automatically (you really are a good friend).

This challenge will take you through the process of designing a simple autocorrection system. Apart from the input, each variant of the problem will require additional textual resources - all the variants will need to use a *dictionary* and in case of the hard variant you will also need to use a *confusion matrix*. Download instructions and format details of those can be found at the end in the *Extra resources* section.

The first step in your autocorrection script involves identifying potential misspellings. Use the provided dictionary to decide if a word is spelled correctly.

Input Format

The input will consist of a single, non-negative integer $0 < N \leq 1000$ in the first line, followed by N lines, each consisting of a single word of length ≤ 50 characters. Words contain only lowercase letters from a to z.

Output Format

For each word in the input, print a single output line saying IN if the corresponding input word exists in the dictionary or OUT if it doesn't.

Sample Input

2



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Sample OutputIN
OUT**Extra resources****Dictionary**

You can download the dictionary following [this link](#). The dictionary was created by taking all the words in a snapshot of English Wikipedia (modulo some basic filtering), and counting their occurrences. Each line in the dictionary consists of a unique word (only lowercase letters between a and z) and a positive integer representing the number of occurrences of the word in Wikipedia, separated by tab.

Sample Input

```
2
hello
world
```

Sample Output

```
IN
OUT
```