Problem 5

Hidden Geography

Remember those old puzzles where a word was hidden inside a seeming innocuous sentence?

For example, "Should I jump on to the red target, or on to the blue one?" contains the hidden word "Toronto" (... red targe**t, or on to** the...)

Given a line of text, your task is to search for a hidden province of Canada in it: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Nova Scotia, Newfoundland, New Brunswick, Prince Edward Island. The hidden word(s) may appear anywhere in the text with its letters (upper and/or lower case) in the correct order, and may have any non-letter characters such as punctuation or characters in between the correct letters.

The input file (**DATA51.txt** for the first submission and **DATA52.txt** for the second submission) will contain five lines of data. Each line will contain no more than 255 characters, each containing text which your program must search for a province in.

The output file (**OUT51.txt** for the first submission and **OUT52.txt** for the second submission) will print for each input line the name of the hidden province: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Nova Scotia, Newfoundland, New Brunswick, Prince Edward Island. If more than one province is found in the input line, output the province that occurs first, from reading the input line from left to right. If no province is found then output NO PROVINCE FOUND.

Sample Input (Only three sets given)

```
For the best value in food and amusements, ask at Chew and View.
The protesters are prepared to confront a riot squad.
Should I jump on to the red target, or on to the blue one?
```

Sample Output

```
Saskatchewan
Ontario
NO PROVINCE FOUND
```