

You have just moved from Waterloo to a big city. The people here speak an incomprehensible dialect of a foreign language. Fortunately, you have a dictionary to help you understand them.

## Input

Input consists of up to 100,000 dictionary entries, followed by a blank line, followed by a message of up to 100,000 words. Each dictionary entry is a line containing an English word, followed by a space and a foreign language word. No foreign word appears more than once in the dictionary. The message is a sequence of words in the foreign language, one word on each line. Each word in the input is a sequence of at most 10 lowercase letters.

## Output

Output is the message translated to English, one word per line. Foreign words not in the dictionary should be translated as ‘eh’.

## Sample Input

```
dog ogday
cat atcay
pig igpay
froot ootfray
loops oopslay
```

```
atcay
ittenkay
oopslay
```

## Sample Output

```
cat
eh
loops
```