

Prince Macaw is flying here and there and searching for food. Her Princess is waiting for him at home. But he stopped when he was flying near Shahbag. He saw millions of people gathered there for only one demand- death sentence of war crimes. They were giving slogans. If you are not familiar with slogans let me tell you, slogan has two parts. One part of the slogan is yelled by the leader and the rest part is chorused from the mass people. For example, when the leader says — “tomar amar thikana” then other say “padma meghna jomuna”. Some of the slogans are listed below-

First Line	Second Line
ko te kader molla	tui rajakar tui rajakar
tumi ke ami ke	garo chakma bangali

Prince also joined with this mass people. When it was too late, Princess got worried about Prince. So she also went out. After some while, she found Prince on a tree at Shahbag yelling slogans in strong voice. Instead of getting mad, Princess asked Prince what are the slogans. So Prince told her a few slogans, first line and corresponding second line. So Princess got prepared. Given the list of the slogans and also the first lines Princess going to hear, print out the second line of the slogans.

Input

First line contains number of slogans, N ($0 < N \leq 20$) Prince is going to teach Princess. Hence follows N pairs of lines. First line of the pair contains first line of a slogan and the second line of the pair is corresponding second line of the slogan. Then another positive integer Q will be given ($Q \leq 100$). Hence follows Q lines. Each line contains first line of a slogan. You may assume that the slogans will contain lower case English alphabet and/or space. Both the lines of slogan will contain at least one alphabet. No two first lines in the Princes slogan list will be same. Each slogan will be at most 100 characters long. All of the query first line will be in Princes list.

Output

For each of the first line of the slogan, you need to print out corresponding second line.

Sample Input

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3
ko te kader molla
tui rajakar tui rajakar
tumi ke ami ke
garo chakma bangali
jalo re jalo
agun jalo
2
jalo re jalo
ko te kader molla
```

Sample Output

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agun jalo
tui rajakar tui rajakar
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