

Playing with String

Jojo likes to play with string. He want to change some alphabet in the string with another alphabet. Given some list of alphabet to be changed to another alphabet, output the final string after being changed.

Format Input

Input starts with T, the number of test cases. For each test cases, there will be an original string. The next line will be an integer M, the number queries. For each queries there will be 2 lowercase characters A and B, denote the transformation of every characters A in the string become B.

Format Output

For each test cases output start with "Case #T: " followed by the strings after all the query is done.

Constraints

- $1 \le T \le 100$
- $0 \le M \le 100$
- The original string only consists of lowercase character with at most 1000 length.

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Sample Input 1 (standard input)

5	
asdasd	
3	
a r	
e t	
s f	
wow	
0	
qwert	
5	
q b	
wi	
e n	
r u	
t s	
1	
ahacd	
3	
l c h	
b a	
a d	
a u	

Sample Output 1 (standard output)

```
Case #1: rfdrfd
Case #2: wow
Case #3: binus
Case #4: socs
Case #5: ddddd
```

Explanation

For case #5, the changes after every query is shown below: "abacd" \rightarrow "ababd" \rightarrow "aaaad" \rightarrow "ddddd"

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Jojo senang bermain dengan string. Jojo ingin mengubah beberapa alfabet dalam string tersebut menjadi alfabet lain. Diberikan daftar alfabet yang akan diubah ke alfabet lain, output string terakhir setelah diubah.

Format Input

Input dimulai dengan bilangan bulat T, jumlah kasus uji. Untuk setiap kasus uji, diberikan string awal. Baris berikutnya merupakan bilangan bulat M, jumlah alfabet yang akan diubah. M baris berikutnya merupakan 2 alfabet huruf kecil A dan B yang merepresentasikan alfabet A dalam string akan berubah menjadi alfabet B.

Format Output

Untuk setiap kasus uji, output dimulai dengan "Case #T: " diikuti dengan hasil string akhir.

Constraints

- $1 \le T \le 100$
- $0 \le M \le 100$
- Dijamin string awal terdiri dari huruf kecil dengan panjang string tidak lebih dari 1000.

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Sample Input 1 (standard input)

```
5
asdasd
3
a r
e t
s f
WOW
0
qwert
5
q b
wi
e n
r u
t s
aoca
1
a s
abacd
3
c b
b a
a d
```

Sample Output 1 (standard output)

```
Case #1: rfdrfd
Case #2: wow
Case #3: binus
Case #4: socs
Case #5: ddddd
```

Explanation

Pada case #5, perubahan setelah setiap permintaan adalah sebagai berikut: "abacd" \to "ababd" \to "aaaad" \to "ddddd"

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