

# Substring Match

Input file:            **standard input**  
Output file:           **standard output**  
Time limit:            1 second  
Memory limit:         512 megabytes

Given two strings  $s$  and  $t$ ,  $s$  is a string containing only lowercase letters, and  $t$  is a pattern containing lowercase and uppercase letters.

Defines that a string can be matched by a pattern:

- A lowercase letter in the pattern matches a corresponding lowercase letter.
- An uppercase letter in the pattern matches any number (including zero) of the corresponding lowercase letters.

For example,  $abb$  can be matched by  $aB$ ;  $aaa$  can be matched by  $A$ ;  $ac$  can be matched by  $aBc$ ;  $ABC$ ,  $aABCCc$ ,  $aab$  can not be matched by  $aB$ ;  $aa$  can not be matched  $a$ .

Now you need to answer the length of the longest substring of  $s$  that can be matched by  $t$ .

## Input

This problem contains multiple test cases.

The first line contains an integer  $T(1 \leq T \leq 100)$  indicating the number of test cases.

For each test case, the first line contains a string  $s(1 \leq |s| \leq 10^5)$ , the second line contains a string  $t(1 \leq |t| \leq 10^5)$ .

It's guaranteed that  $\sum |s| \leq 10^5$ ,  $\sum |t| \leq 10^5$ , and **total of uppercase letters of  $t$  no more than 200 for all test cases.**

## Output

For each test case, output the length of the longest substring of  $s$  that can be matched by  $t$  in a line.

## Example

standard input	standard output
3	3
aaa	3
ABa	2
aaa	
aAaBa	
aaa	
aa	