

J: Wildcards

Source file name: `wildcards.c`, `wildcards.cpp`, or `wildcards.java`

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Alice and Bob are playing a game: Alice selects a text t and a word w , and then Bob has to say how many times w occurs in t . However, after a while, Alice realizes that this version of the game is too boring for Bob and decides to make a modification: in her new version of the game, the wildcard symbol '?' can occur in w any number of times. Each occurrence of '?' in w can be matched with any character in t .

In the new version of the game, for instance, if the text is $t = \text{banana}$ and the word is $w = ?a?$, then w occurs twice in t : at position 0 matching `ban` and at position 2 matching `nan`. Notice that matches can overlap.

Can you write a program to help Bob solve this new game?

Input

The input consists of several test cases, each one defined by two lines. The first line contains the text t and the second line contains the word w . The text t consists of lowercase letters from the English alphabet ($1 \leq |t| \leq 10^5$), and the word w consists of lowercase letters from the English alphabet and the wildcard character '?' ($1 \leq |w| \leq 10^5$). It is guaranteed that there will be at most k wildcard characters in w , where $0 \leq k \leq \min(|w|, 10^6/|t|)$.

The input must be read from standard input.

Output

For each test case, print a line with one integer denoting the number of times w appears in t if each wildcard character matches any character in t .

The output must be written to standard output.

Sample Input	Sample Output
banana	2
?a?	3
bananas	1
?a?	0
abide	2
a??d	0
abide	8
a?d	0
abracadabra	
a?a	
acisredis	
?b	
acisredis	
??	
icpc	
world?finals	