Word Puzzle

A word puzzle is a puzzle that completes a given word using given word pieces. Given word fragment has an infinite number of each. For example, if a given word fragment is [ba na n a], then there are infinite number of 'ba', 'na', 'n', and 'a' word fragment each. If the given word is banana, the word can be competed by using four of 'ba', 'na', 'n', and 'a' and also, 'ba', 'na', and 'na'. you can complete 'banana' with just 3 of them. Find the minimum number of word fragments that must be used to complete the given word. If it is impossible to compete the given word, output should be -1.

Input:
1. First line consists of word fragments with space separated
2. Second line the word to make a puzzle

Output:
1. Minimum number of word fragments that must be used to complete the given word. If it is impossible, return -1

Sample:

No.	Sample Input	Sample Output
1	ba na n a banana	3
2	app ap p i e ple pp apple	2
3	ba an nan ban n banana	-1