

2250 - Substring Frequency

Description

A string is a finite sequence of symbols that are chosen from an alphabet. In this problem you are given two non-empty strings **A** and **B**, both contain lower case English characters. You have to find the number of times **B** occurs as a substring of **A**.

Input specification

Input starts with an integer **T** ($1 \leq T \leq 5$), denoting the number of test cases. Each case starts with two lines. First line contains **A** and second line contains **B**. You can assume that $1 \leq \text{length}(\mathbf{A}), \text{length}(\mathbf{B}) \leq 10^6$.

Output specification

For each case, print the case number and the number of times **B** occurs as a substring of **A**.

Sample input

```
4
axbyczd
abc
abcabcabcabc
abc
aabacbaabbaaz
aab
aaaaaa
aa
```

Sample output

```
Case 1: 0
Case 2: 4
Case 3: 2
Case 4: 5
```

Hint(s)