Given two lines s and t. Count the number of s substrings that can be composed of t characters. Two substrings are considered different if the boundaries of their occurrence are different.

For example, if $s = aaab$, and $t = aba$, then three occurrences of substring a, substring b, two occurrences of substring a, substring ab, and substring aab are suitable for us. The substrings aaa and $aaab$ are not suitable, since there are only two letters a in the t string.

The first line of the input contains two integers n and m – the lengths of the lines s and t, respectively ($1 \leq n, m \leq 10^5$).

The second line contains the string s. The third line contains the string t. Both lines consist only of lowercase Latin letters.

Print a single integer – the number of substrings in s that can be composed of characters in the string t.

Sample input 1:
4 3
aaab
aba

Sample output 1:
8

Sample input 2:
7 3
abacaba
abc

Sample output 2:
15