Problem C. Cat

Input file:	*standard input*
Output file:	*standard output*
Time limit:	2 seconds
Memory limit:	512 mebibytes

How many distinct strings can be obtained by concatenating a non-empty suffix of string a with a non-empty prefix of string b?

Input

The first line contains a single integer t ($1 \le t \le 10^5$), denoting the number of test cases.

Each test case is described with strings a and b on separate lines. Both strings consist of lowercase English letters and have length between 1 and 10^5, inclusive.

The total length of strings over all test cases does not exceed $2 \cdot 10^5$.

Output

For each test case, display the required number.

Example

standard input	standard output
5 abb bba aaa aaaaa winter camp ehehe heheh aaaaaaabaaaa aabaaaaaa	8 7 24 16 97

Note

In the first test case, all obtainable strings are `abbb`, `abbbb`, `abbbba`, `bb`, `bbb`, `bbba`, `bbbb`, `bbbba`.

In the second test case, only strings consisting of at least 2 and at most 8 letters `a` can be obtained.