Problem C. Choose Two Subsequences

Input file:	*standard input*
Output file:	*standard output*
Time limit:	1 second
Memory limit:	512 mebibytes

Clara has two strings s and t. She would like to choose two subsequences x from s and y from t such that:

- x is lexicographically smaller than or equal to y.
- The sum of $|x|$ and $|y|$ is maximal, where $|s|$ denotes the length of the string s.

Note that:

- Both x and y could be empty string.
- A subsequence is a sequence that can be derived from the given sequence by deleting zero or more elements without changing the order of the remaining elements.
- String x is lexicographically less than string y, if either x is a prefix of y (and $x \neq y$), or there exists such i ($1 \leq i \leq \min(|x|, |y|)$), that $x_i < y_i$, and for any j ($1 \leq j < i$) $x_j = y_j$.

Input

The input consists of several test cases terminated by end-of-file. For each test case:

The first line contains a string s. The second line contains a string t.

- $1 \leq |s| \leq 2000$
- $1 \leq |t| \leq 2000$
- The sum of $|s|$ does not exceed 20000.
- The sum of $|t|$ does not exceed 20000.
- Both the strings consist only of English lowercase letters.

Output

For each test case, output the sum of $|x|$ and $|y|$.

Example

standard input	standard output
aaaa bbbb abcd abca abcd abcd	8 7 8