Longest Common Subsequence Algorithm Help

Looking for common subsequences is an important algorithm in computer science, from analyzing genetic data (looking for common DNA or proteins) to comparing text files for similarities and differences (e.g. the Unix `diff` command).

Algorithm help:

for `LCS(String s1, String s2)`:

- If the Strings begin with the same letter `c`, the result to return is `c` plus the longest common subsequence between the rest of `s1` and `s2`. For example, the longest subsequence between "hollow" and "hello" is an "h" plus the longest subsequence found between "ollow" and "ello".
- If the strings do not begin with the same letter, return the longer of the following:
    - The longest common subsequence between `s1` and the rest of `s2`
    - The longest common subsequence between the rest of `s1` and `s2`.

For example, `LCS("ollow", "ello")` is the longer of `LCS("ollow", "llo")` and `LCS("llow", "ello")`.