1. Design any polynomial-time algorithm to get a LCS (not just the length of the LCS) of two strings, using linear space.

2. You are given a text $T$ of $n$ characters, and your goal is to find the length of the longest possible subsequence in $T$ that reads the same forward and backward. For example, in $XABCBBACXA$, we can find $XAB...BBA...X...$ to form the subsequence $XABBBAX$ of length 7. Give a time and space complexity. If your algorithm can find a sequence with maximum length (not just the length itself), even better.