You can seek clarifications only from the instructor.

**Question 1 (42 points)**

Recall in Lab 4 that you created a class `Blister`. The goal here is to add one function to that class.

Given two strings/sequences, we say the first sequence `contains` the second if deleting some letters from the first string (but not rearranging) yields the second string. For example, `TLIGEONREX` contains each of `TIGER` and `LEE` and `X`. You may assume that all strings have at least one character.

To your code add a “contains” function. The function should run in linear time and not use any other data structure.

The revised header file is provided. The code will only be run with the supplied driver. And the only part that is being graded is the `contains` function.

Submit only `BlisterExam.cpp`

**Question 2 (25 points)**

Wanda wants a data structure that supports the three operations `insert`, `extractMin`, and `extractMax`. She considers three options:

(a) sorted array
(b) a red-black tree
(c) duplicating the data and storing in both a min-Heap and a max-Heap

For each option, state the running times of each of the three operations. Justify your answers.

**Question 3 (33 points)**

Consider programming Assignment 2 (incremental convex hull using circular linked lists). Write around two pages discussing the assignment and your experience with it. Comment especially on the design of the classes used. Suggest improvements or alternatives for future years.