1. Write a program that reads and stores the first names of any number of students, along with their grades. Calculate and output the average grade and outputthe names and grades of all the students in a table with the name and grade for three students on each line.

2. Write a program that reads text entered over an arbitrary number of lines.Find and record each unique word that appears in the text and record the number of occurrences of each word. Output the words and their occurrence counts. Words and counts should align in columns. The words should align to the left; the counts to the right. There should be three words per row in your table.

3. Write a program that reads a text string of arbitrary length from the keyboard and prompts for entry of a word that is to be found in the string. The program should find and replace all occurrences of this word, regardless of case,by as many asterisks as there are characters in the word. It should then output the new string. Only whole words are to be replaced. For example, if the string is "Our house is at your disposal." and the word that is to be found is "our", then the resultant string should be as follows: "*** house is at your disposal." and not "*** house is at y*** disposal.".

4. Write a program that prompts for the input of two words and determines whether one is an anagram of the other. An anagram of a word is formed by rearranging its letters, using each of the original letters precisely once. For instance,listen and silent are anagrams of one another, but listens and silent are not.

5. Generalize the program of Question 4 such that it ignores spaces when deciding whether two strings are anagrams. With this generalized definition, funeral and real fun are considered anagrams, as are eleven plus two and twelve plus one,along with desperation and a rope ends it.

6. Write a program that reads a text string of arbitrary length from the keyboard followed by a string containing one or more letters. Output a list of all the whole words in the text that begin with any of the letters, uppercase or lowercase.

7. Create a program that reads an arbitrarily long sequence of integer numbers typed by the user into a single string object. The numbers of this sequence are to be separated by spaces and terminated by a # character. In other words, the user does not have to press Enter between two consecutive numbers. Next, use a string stream to extract all numbers from the string one by one, add these numbers together,and output their sum.

8. Repeat Question 7, only this time the user inputs the numbers one by one, each time followed by an enter. The input should be gathered as a sequence of distinct stringsâ€”for the sake of the exercise still not directly as integersâ€”which are then concatenated to a single string. The input is still terminated by a # character. Also,this time, youâ€™re not allowed to use a string stream anymore to extract the numbers from the resulting string.