## Problem ID: 4

## Problem Name: Catch a virus

## Description: A medical team are examining DNA to see how and where viruses are working in the human body. The team are working with pairs of DNA data. One set of data contains the DNA of a person before a viral infection; the second set of data contains the DNA after a possible virus infection. A database of effects of various viruses exists; it contains the name of the virus, the date, time location and first patient to ever develop the virus, the effect on DNA in terms of sections that are added or removed, and whether or not a treatment exists.

## DNA data is characterised as being a set of letters made up of the letters A, T, C and G, for example: AATCGACGGTCCATGCTTACG. You must determine whether or not a virus has altered the first sample by examining the second sample, and if it has altered it determine which virus it is.

## UB Number:

## Name:

<ADD YOUR **ONE PAGE** ANALYSIS AND PROPOSED SOLUTION HERE AND REMOVE THIS TEXT.>

<ADD YOUR FLOW CHART OR PSEUDOCODE HERE AND REMOVE THIS TEXT. NO ADDITIONAL TEXT SHOULD BE ON THIS PAGE EXCEPT FOR TEXT IN A FLOWCHART OR PSEUDOCODE ALGORITHM>