Programming Briefs

You may use any programming language you like, within reason. Please thoroughly comment your code and explain any functions you call. These will be taken in conjunction with the SQL brief and the circuitry brief to formulate your grade for 4CS015.

1. Smallest sub string

Take a 6 digit number and remove any 3 digits in a row to make the smallest number.
Input: 6 digit number, e.g 823902

Output: 802, 822, 823, 902, smallest number is 802 so 802 is outputted.

Number must not contain a leading 0, and must be positive.

2. Find and Replace in string

When given a string of up to 50 characters in length, replace any substring with a given substring.

Input: asdjfkidkkkkdpdkf , replace all instances of dp with the given substring of display port

Output: asdjfkidkkkk display port dkf

3. Distance between 2 value pairs

Two lists (of up to 10 values) of numbers will be inputted. The program will calculate the differences between each list at the same index and print all pairs with a difference greater than a given number.

Intput: a{1, 2, 6, 0, 3} b{1, 4, 2, 0, 9} given number of 3

Output: (6,2) (3, 9)