SBSC C# ASSESSMENT

(*simplicity is the prerequisite for reliability***)**

1. Given a string of hyphen separated numbers return true where k is the same for all numbers otherwise return false.

   k is the interval between a number and the next.

   Example1:

   Inputs:

   Sample string: "1-2-2-4-5"

   Output: False.

   Example2:

   Input:

   Sample string:"3-4-5-6-7"

   Output: True.

2. Given an ordered list of integers you are expected to find the absolute difference D, then insert D into the list. Do this until the difference between all integers exist in the list then return the Kth integer. If the Kth integer cannot be found return -1.

   Hint: no integer must exist more than once.

   D is the absolute difference between an integer and the next.

   K is the position of an integer in the list.

   Example1:

   Inputs:

   List of integers [1,4,6,9]

   Value of K: 3

   Output: 7

   Example2:

   Inputs:

   List of integers [1,2]

   Value of K: 5

   Output: -1

3. Given a string compute how many times a letter occurs in the string and return it formatted such that every non-repeated letter in the string is followed by its number of occurrences.

   Example:

   Input: occurrence

   Output: o1c3u1r2e2n1