Coding Challenge Amateur

1. Create a function that takes a number, x, and adds up all the numbers from 1 to x. For example: if x is 4 then your program should return 10 because 1 + 2 + 3 + 4 = 10. X can be any number from 1 to 1000.
    a. Example: 12
        i. Return: 78

2. Given an array of strings, return an array only containing strings that don't contain the word, "raisins" (case-insensitive).
    a. Example: ["Mashed Potatoes", "Box of raisins", "Raisin-man"]
        i. Return: ["Mashed Potatoes”]

3. The DNA strand is missing the pairing element. Take each character, get its pair, and return the results as a nested array. Base pairs are a pair of AT and CG. Match the missing element to the provided character. Return the provided character as the first element in each array.
    a. Example: “GCT”
        i. Return: [["G", "C"], ["C","G"],["T", “A"]]

4. Create a function function that takes in a string and replaces every *letter* in the string with the letter following it in the alphabet (ie. c becomes d, z becomes a). Then capitalize every *vowel* in this new string (a, e, i, o, u) and finally return this modified string. Only lowercase letter strings will be passed as input.
    a. Example: "*r@lokd 0tsots*"
        i. Return: "*s@mplE 0UtpUt*"

5. A palindromic number reads the same both ways. The largest palindrome made from the product of two 2-digit numbers is 9009 = 91 × 99. Find and return the largest palindrome made from the product of two 3-digit numbers in the following format:
    a. first3DigitNumber * second3DigitNumber = largestPalindrome
    b. (i.e. for the 2 digit number example, it would be “91 * 99 = 9009”)

Judging Questions with Answers:

1. Input: 140
   Return: 9870
   Input: 473
   Return: 112101

2. Input: ["Chocolate Chip Cookies", "Raisin Trail Mix", "Non-Raisin Cinnamon Buns", "Cous Cous", "Granola bars", "Raisin Scones", "Bagels", "Oatmeal Raisin Cookies", "Raisin Cookie Dough Ice Cream", "Dogs shouldn't eat raisins"]
   Return: ["Chocolate Chip Cookies", "Cous Cous", "Granola bars", "Bagels"]

3. Input: "ATCGA"
   Return: [["A","T"],["T","A"],["C","G"],["G","C"],["A","T"]]
   Input: "TTGAG"
   Return: [["T","A"],["T","A"],["G","C"],["A","T"],["G","C"]]

4. Input: "gzoox gz11nvddm!"
   Return: "hAppy hA11OwEEn!"
   Input: "$o00jx bnc1mf bg@kkdmfd"
   Return: "$p00ky cOd1ng ch@llEngE"

5. Return: 913 * 993 = 906609