

Lab 8:

Task 1:

Change your script from lab 7 (task 1), to have function `IsPalindrome` with a string as a parameter. The function returns `False` if a given string is not a palindrome while `True` if it is.

Task 2:

Change your script from lab 7 (task 3), to have function `IsAnagram` with two strings as parameters. The function returns `False` if given strings are not anagrams while `True` if they are.

Task 3:

Write function that checks if three given sides of a certain triangle can be sides of the right triangle. First, check if it is possible to construct a triangle from these sides. Second, check if such triangle would be the right triangle. Use the Pythagorean theorem: $c^2 = a^2 + b^2$, but you have to check which side is a hypotenuse (the longest side of the right triangle, opposite the right angle).

Input: 5 3 4

Output: This is a right triangle

Input: 1 3 4

Output: This is not a right triangle

Task 4:

Write script that will ask the user for the number of a word in the Fibonacci sequence and calculate its value. Only the number of the word in the sequence and its value should be printed. Use function to calculate the value.

Input: 4

Output: The value of 4-th element is: 3

Task 5:

Draw 5 real values from the range given by the user (you have to anticipate that the user can provide integers). Give the result as a list contains real numbers rounded to 3 decimal places.

Hint. Use `uniform()` function from `random` module.

Task 6:

Write a program that takes a comma-separated sequence of words as input and displays the words alphabetically sorted, also with commas.

Sample input: sue, has ,a cat

Sample output: a cat,has,sue

Eliminate white spaces if they are in input (as in the above example).