Lab 1: Python Basics

Assignment **is due by the end of the lab** and must be submitted through Blackboard.

Submission instructions: you must submit **one (1) .py file**. Please name the file in the usualNetID_2XX_Lab1.py format.

Problem Description

Sarah recently got a car for her birthday and is driving to her friend, Kim's house. She is driving with a uniform acceleration (a m/s^2) along a straight road. t_1 seconds after starting, she has a speed of v_1 m/s and after t_2 more seconds she has a speed of v_2 m/s. Based on this information, you need to write a program, to accept the value of v_1, v_2, t_1, t_2 and then use that information to calculate the value of the uniform acceleration which she was travelling with. Note that acceleration is defined as the change in velocity over time. An example of the accepted input and output format for this problem is provided below. It sequentially asks the user for the four required values and then outputs the value of the acceleration.

Example Input/Output:

Please enter the value of v_1 in m/s:
60

Please enter the value of v_2 in m/s:
90

Please enter the value of t_1 in s:
3

Please enter the value of t_2 in s:
5

The acceleration of Sarah is:
6 m/s^2

Important Guidelines:

Use operators such as $+,-,*, /,**$ etc., as needed.
The following data types and their casting functions may be used: int, float, str
You may not import other modules (like math).
Do not use string formatting for output only use basic string concatenation with print()
Do not use any other programming element that has not been covered in the class or the ZyBook readings at this time.