

Lab 2

Instructions: Complete the steps below. Be sure to show your code to one of the lab TAs before you leave, so that you can receive credit for this lab. You must also upload a copy of all your source code (.java) files to the link on Blackboard by **11:59 PM on February 6, 2019 for L01** and by **11:59 PM on February 7, 2019 for L02-L06**.

1. Average acceleration is defined as the change of velocity divided by the time taken to make the change, as given by the following formula:

$$a = \frac{v_1 - v_0}{t}$$

Write down a program that prompts the user to enter the starting velocity v_0 in meters/second, the ending velocity v_1 in meters/second, and the time span t in seconds, then display the average acceleration. Here is the sample run:

Enter v_0 , v_1 and t : 5.5 50.9 4.5
The average acceleration is 10.0889

Note:

- Declare variables v_0 , v_1 and t of type double.
- Prompt the user to input the value of the variables v_0 , v_1 and t (using `System.out.println()` method)
- Use Scanner to get the inputs for v_0 , v_1 , t and a from the user.
- Use arithmetic operators to compute a

Grading Guidelines: This lab is graded on a scale of 0-3 points, assigned as follows:

- **0 points:** Student is absent or does not appear to have completed any work for the lab
- **1 point:** Student has written the program, but it has errors.
- **2 points:** Student has written the program it compiles without error, but it does not produce the correct output.
- **3 points:** Student has written the program and it compiles and runs correctly, without any errors.