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To do: Receive a grade

Due: Tuesday, 9 September 2025, 11:59 PM

## Part 1

Do the exercises below and comment on the code. You can answer the questions in the script file by using the commenting function.

The process parameters found from the step response test 2.9.2025 are:

$$K = 2.6$$

$$T = 92$$

$$L = 2$$



This is a first-order process. Using Matlab, create a script to define the above process.

Use the *step* function to print a graph. Can you find the above parameters in the graph?

Multiply the transfer function by two. How does this affect the graph? What is the amplitude when the measurement reaches its final value?

Print both versions on the same figure and name the figures using the *legend* command.

Also test the *grid* and *figure* commands.

Test the same with Simulink. Show both transfer functions in the same scope.

Part 2

Save the Sailio.mdl file below to the H drive. Open the file in Simulink. The model has two ready-made subsystems to model two different processes. Try running the model with different simulation runs and determine the transfer functions of the processes from the responses.

Try making the transfer functions you have determined in the same file and test that they match the processes.

Submit

Make a report and return it to Moodle in pdf format. Include screenshots of the tests and a short commentary.













 [Sailio.mdl](#)

25 August 2025, 12:54 PM

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Submission status

Submission status	Submitted for grading								
Grading status	Not graded								
Time remaining	Assignment was submitted 2 days 9 hours early								
Last modified	Sunday, 7 September 2025, 2:55 PM								
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