EGR 272 Due date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Circuit Theory II

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**MATLAB Assignment #1**

Work each problem below and submit the assignment to the instructor. You can ask other students questions, but you work should essentially be your own. Copying other’s files is strictly prohibited. Evidence of copying will result in grades of 0 for all parties involved.

In general most MATLAB assignment should include the following items:

* All required hand calculations
* All MATLAB programs
	+ Write programs (.m files) – do not use the Command Window.
	+ Be sure to begin with a block of comments including name, course number, assignment number, problem, and a brief description of the problem.
	+ Include comments throughout each program. Use comments to indicate units for variables.
	+ All graphs should nicely formatted, including titles, axis labels, gridlines, and text with name and problem number.
* All required MATLAB outputs
1. ***1st-order differential equations***:
	* Write a MATLAB program to solve each differential equation below. The output should show the equation for the solution to the differential equation.
	* Graph the results using ezplot( ). Graph from 0 to 5Tau. Show the calculation for 5Tau as a comment.
	* No hand analysis is required.
	* Turn in the MATLAB program, output, and graph for each part.



1. ***2nd-order differential equations***:
	* Write a MATLAB program to solve each differential equation below. The output should show the equation for the solution to the differential equation.
	* Graph the results using ezplot( ). Graph from 0 to 5Tau. Show the calculation for 5Tau as a comment.
	* No hand analysis is required.
	* Turn in the MATLAB program, output, and graph for each part.

