

Due Monday, September 26 (no extensions)

**Problem #1 (10 points)**

Use MATLAB to graph  $y = e^x$ ,  $y = -e^x$ , and  $y = e^x \sin(2\pi x)$  on the same set of axes for  $-1 \leq x \leq 1$ .

Please use the following formatting instructions.

- Draw the graph of  $y = e^x \sin(2\pi x)$  using a solid blue line, draw the graph of  $y = e^x$  using a dashed red line, and draw the graph of  $y = -e^x$  using a dashed green line.
- Create a title containing your name.
- Create a legend to indicate which curve is which. **The only variables in the problem are  $x$  and  $y$ . Don't use other letters in your legend.**
- Be sure to label your axes. **The only variables in the problem are  $x$  and  $y$ . Don't use other letters in your axis labels.**
- Use enough points so your graphs look like smooth curves.

**Please give me both your graph and your MATLAB code.** You can cut and paste both your graph and your MATLAB code into a Word document.

Please email your results to me at `stephen_pennell@uml.edu`.