MAP 2302 - Quiz #2 **Name:**

For full credit, you must show all work and circle your final answer.

1a *(1 point)* Use the method of undermined coefficients to find a particular solution to the differential equation.

$$y'' - y = e^t$$

1b *(1.5points)* Write the form of the particular solution.

(i) $y'' - y = (2t + 1)e^t$

(ii) $y'' + 2y' + y = (5t^2 + 3t + 1)e^t$

(iii) $y'' + y = \cos(t)$

2 *(2.5 points)* Use variation of parameters to find a particular solution to the differential equation.

$$y'' - 2y' + y = t^{-1}e^t$$

University of Florida Honor Code:

On my honor, I have neither given nor received unauthorized aid in doing this assignment.

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Signature