MAP 2302 - Quiz #1   **Name:**

For full credit, you must <u>show all work</u> and <u>circle</u> your final answer.

| 1 | *(2.5 points)* Solve the linear differential equation for the given initial conditions.

$$x\frac{dy}{dx} + 3y + 2x = 3x^2, \quad y(1) = 1.$$

<div style="border:1px solid">2</div> *(2.5 points)* Solve the following equation.

$$(e^x y + x e^x y)\, dx + (x e^x + 2) dy = 0$$

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