

Name: \_\_\_\_\_

Lecturer \_\_\_\_\_

Lecture Section: \_\_\_\_\_

**Ma 221**

**Exam IA**

**07S**

I pledge my honor that I have abided by the Stevens Honor

System. \_\_\_\_\_

**You may not use a calculator, cell phone, or computer while taking this exam. All work must be shown to obtain full credit. Credit will not be given for work not reasonably supported. When you finish, be sure to sign the pledge.**

Score on Problem #1 \_\_\_\_\_

#2 \_\_\_\_\_

#3 \_\_\_\_\_

#4 \_\_\_\_\_

Total Score \_\_\_\_\_

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Lecture Section: \_\_\_\_\_

Solve the equations:

**1 [25 pts.]**

$$e^y dx + (xe^y + 2y)dy = 0$$

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**2 [ 25 pts. ]**

$$y' + \frac{1}{x}y = \frac{2}{x} \quad y(1) = 1$$

.

**3 [25 points]**

$$xy^2 - y'x^2 = 0 \quad y(1) = 2$$

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**4 [ 25 pts. ]** Solve the equation

$$y' + xy = xy^4$$