

Math 2221 **Test 1 Supplement** For 1:30 pm, Thursday, October 15th, 2009

Name _____

Student ID# _____

Instructions

Problems are on separate pages - show all your work on the problem page, or indicate clearly if you write on another page. Partial credit is given for working, full credit is given for correct answers with justification, but no credit is given without adequate working.

The test lasts one hour. Each of the 2 questions is worth a possible 4 points.

For grader's use only.

1.
2.

Total _____

1. Solve the initial value problem

$$y'' - 4y' + 4y = 0,$$

$$y(0) = 1/2, y'(0) = 0.$$

2. Use an integrating factor depending on only one variable to solve the equation

$$y^2 dx + (xy - ye^y) dy = 0.$$