

Instructor: Florin Rădulescu
Section 000

Name:
SS#:
Grade:

Sample First Midterm 22M042

This is just a sample-The actual exam may look different

Fall, 2003

Show all work, unsupported answers will receive no credit. No books
You **may** use your calculators and one handwritten page of formulae.

1. (20 pt)

Find the integrating factor and solve

$$y' = e^{2x} + y - 1$$

2. (20 pt) Solve

$$(x^2 + 3xy + y^2)dx - x^2dy = 0$$

3. (20 pt)

Solve

$$(x + e^y)dy - dx = 0.$$

4. (20 pt) Solve the equation

$$y'' + 1 = \cos t.$$

5. (20 pt)

Solve

$$y'' + 2y' + 1.25y = 0, y(0) = 3, y'(0) = 1.$$