

Millersville University
Department of Mathematics
MATH 365, *Ordinary Differential Equations*, Homework 4
February 20, 2003

Please answer the following questions. Answers without justifying work will receive no credit. Partial credit will be given as appropriate, do not leave any problem blank. Each problem is worth 10 points. Your completed assignment is due at class time on Wednesday, February 25, 2003.

Solve the following ordinary differential equations and initial value problems.

1. $y'' + 8y' - 9y = 0$

2. $y'' + 4y' + 7y = 0, \quad y(0) = 1, \quad y'(0) = -2$

3. $y'' + 11y = 0$

4. $4y'' - 4y' + 5y = 0, \quad y(0) = 1, \quad y'(0) = -11/2$

5. $y'' + 5y' - 14y = 0, \quad y(0) = 5, \quad y'(0) = 1$