

Millersville University
Department of Mathematics
MATH 365, *Ordinary Differential Equations*, Homework 8
April 7, 2004

Find the general solutions to the following ordinary differential equations. 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 Monday, April 12, 2004.

1. $x^2y'' + xy' - y = 0$

2. $4x^2y'' + 8xy' - 3y = 0$

3. $x^2y'' - 4xy' + 6y = x^3$

4. $x^2y'' + 2xy' - 12y = 0$

5. $x^2y'' + xy' = 0$

6. $x^2y'' + xy' + y = \ln x$