

Score:

Name:

**HW1 - Due 02/06/2008**  
**ODE - spring 2008**

Solve the following equations

1.  $x' + tx^2 = xt$

2.  $x' = \cos(x - t)$

3.  $x' + \cos(t)x = \sin(t)$

4.  $tx' + t^2 + tx - x = 0$

5.  $2txdt + (t^2 - x^2)dx = 0$

6.  $(t^2 + x^2 + t)dt + xdx = 0$

7.  $tx' = x - te^{x/t}$