

NAME:

### Math 266B Fall 2008 Quiz #1

For each equation, circle the answer that best describes it.

1.  $y''y - 2ty' + e^ty = \cos 2t$

A: 2nd order linear    B. 3rd order linear    C. 2nd order nonlinear    D. 3rd order nonlinear

2.  $e^{3t^2+1}y''' - (4\cos 2t + 5\tan 3t)y = \ln(t^4 + 3t^2 + 1)$

A: 2nd order linear    **B.** 3rd order linear    C. 2nd order nonlinear    D. 3rd order nonlinear

3.  $(x^2 + 2y) + (2x + \cos 3y^5)y' = 0$

A: Linear    B. Separable    **C.** Exact    D. None of the preceding

4.  $(x^2 + 2y) + (2x + 1)y' = 0$

**A:** Linear    B. Separable    C. Exact    D. None of the preceding

5.  $(x^2 + 3y^5) + (2x + \cos 3y^5)y' = 0$

A: Linear    B. Separable    C. Exact    **D.** None of the preceding

6.  $(y^2 + 2y) + (2x + 1)y' = 0$

A: Linear    **B.** Separable    C. Exact    D. None of the preceding

7.  $(x^2 + 2xy) + (2x + 1)y' = 0$

**A:** Linear    B. Separable    C. Exact    D. None of the preceding

∕ SCRATCH SPACE ∖