

Math 207 Quiz #7
May 18, 2010

Name: _____

Show all work and answers on a separate sheet with a box around your final answer.

1. (2 pts.) Find the general solution of the third-order homogeneous equation $y''' + y' = 0$.
2. (3 pts.) Determine the **form** of the particular solution of $2y'' - 4y' + 10 = 7te^t \sin(2t)$. (**You do not need to solve for the coefficients of the particular solution.**)
3. (5 pts.) Solve the following initial value problem. $z'' + 2z' + z = 1 + 2xe^x$, $z(0) = 3$, $z'(0) = 0$.