# QUIZ #23, 11/13/07

MATH 54, FALL 2007

*Show your work and justify your answers! Feel free to use both sides.*

**Name:**

1. (6 pts) Rewrite $4y'''(t) + 3t^2y''(t) - \sin(t)y(t) = 2\sqrt{t}$ as a first-order system in the normal form $\mathbf{x}' = \mathbf{A}\mathbf{x} + \mathbf{f}$.

2. (4 pts) Find the general solution to $y''' + 9y' = 0$.