

QUIZ 2 (FALL 2003)

Problem 1. Find a general solution to the initial value problem

$$y^{(3)} + y' = \sin(t) + t\cos(t)$$

Problem 2. Solve the initial value problem

$$y^{(3)} - y' = 0, \quad y(0) = 3, \quad y'(0) = -1, \quad y''(0) = 1.$$

Problem 3. Find a general solution to the ordinary differential equation

$$y'' - 2y' + y = \frac{e^t}{t}.$$

Problem 4. Find a general solution to the ordinary differential equation

$$y^{(5)} + y^{(3)} = 0$$