MA 238-02 §3.1–3.5	**Quiz #4**	*score*	**Name:** _____ **22 March 1999**

1. Find the general solution to the differential equation $y'' + 2y' + 5y = 0$. After finding the solution, describe it in words (is it periodic?; does it go to zero as t increases? etc.) *(6 points)*

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2. Find the solution of the IVP $2y'' + 3y' - 2y = 0$, $y(0) = 1$, $y'(0) = 1$. Describe what happens as $t \to \infty$. *(7 points)*

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3. Find a particular (i.e., just one solution) for the driven ODE $y'' + y = 2\sin(2t)$. [You do not need to find the general solution to the undriven equation.] Describe the solution you obtain. *(7 points)*