Math 325: Differential Equations Name:_____ Quiz 1 Sept. 11, 1996

Let $L[y] = y^{(4)} + 4y^{(3)} + 13y''$.

a) Find the general solution of the differential equation L[y] = 0.

b) Using the method of undetermined coefficients, determine a suitable form for a particular solution of the differential equation $L[y] = x^2 + \sin(3x)$. Do not solve for the constants.