

Name:_____

Score:_____

Instructions: You must show supporting work to receive full and partial credits. No text book, notes, formula sheets allowed.

1(5pts) Find a general solution to the Cauchy-Euler equation $t^2u'' + 4tu' + 2u = 0$.

2(5pts) Use the method of undetermined coefficients to find a particular solution to the equation $u'' - 3u' + 2u = t + 1$.

3(5pts) Find the **FORM** only for a particular solution to the nonhomogeneous equation $u'' - 3u' + 2u = te^{2t} + \cos(2t)$. (Do not solve for the coefficients.)