

Name:_____

Score:_____

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

1(8pts) Solve the equation $tx'' = -x' + 4t$ by reducing it to a first-order equation.

2(7pts) Find the solution to the initial value problem $u'' + u' + u = 0$, $u(0) = u'(0) = 1$.