Applied Mathematics I - Worksheet #15

Name:_____ Box #:_____

1. Second order ODE's

1. Set up the equation for example 6.2 where the applied force is $b(t) = \cos(10t) + 2\sin(10t)$: Assume for this problem that $m = 10$; $\pm = 20$; $k = 7{:}5$: If you can also …nd the general homogeneous solution and the exact solution do so. Then plot the solution. and estimate when it reaches a "steady state".

1. Do the same as number 1 except for example 6.3 with a constant applied voltage $v(t) = 1$: