Computational Physics / PHYS-GA 2000 / Problem Set #9
Due November 26, 2024

You *must* label all axes of all plots, including giving the *units*!!

1. Exercise 8.6 in Newman.

2. Exercise 8.7 in Newman. Before approaching the problem numerically, show that set of possible values of R, ρ, C, m, and g maps to a one-parameter family of solutions, which in terms of a typical timescale T is controlled by the combination $R^2\rho C g T^2/m$. That is, show that if you rescale variables from t to t'/T and from x to an appropriate x', you get a unitless set of equations with one free (unitless) parameter.