Math 20750
Spring, 2016

Assignment 9, due March 18

Reread §8.3 and read §§8.4–5 and §9.1 in Polking, Boggess and Arnold.

Do:
§8.3 #10,11,12,13,15
§8.4 #26,28
§8.5 #24,26,28,33,34

Additional problem

Use **ode45** to find and plot a numerical approximation of the orbit (the path of the particle in the xy plane) in §8.5 #33 with $k = 1$ and $x(0) = 2, x'(0) = 0, y(0) = 0, y'(0) = -0.5$. (§14.3.3 in *Differential Equations with MATLAB*® explains how to use **ode45** for systems.)

Read chapters 14 and 15 in *Differential Equations with MATLAB*®.

Do as a MATLAB group:
Problem Set F #4 Do not use **pplane** on this problem.

Hint for Problem Set F #4

In (b), be sure indicate the direction of increasing time on the trajectories.