CHANGE IN DUE DATE OF THIS ASSIGNMENT:

Turn in starred problems Thursday 10/15/2009. **Be sure to read the instructions below.**

Section 7.2: 1; 4 (a), (b)*; 5 (a) (c) (f); 10

Section 7.3: 1 (a), (c)*, (h); 9 (a), (g), (h)*, (j); 11 (a)*, (d)*

Instructions: In Section 7.2, problems 4 and 5, the instruction to find "the equation of the phase trajectories" means to find a conserved quantity by the method indicated at the bottom of page 338 (equations (4) and (5)) and use that to plot trajectories.

In Section 7.3, problems 9 and 11, first **find the general solution of the equations by matrix methods**—that is, using eigenvalues and eigenvectors—as we did in class. Then complete the instructions in the text. Finally, in problem 11 (as well as problem 9), **sketch some trajectories in the phase plane.** In problem 11 your sketch can be very rough.