

Problem 2.1–16. Proceed as follows.

- a. First, use pplane or HPGSystemSolver to generate a phase-plane portrait.
- b. Then determine what happens to the rabbit and fox populations.

Problem 2.2–8. Proceed as follows.

- a. Write the given second-order differential equation as a system of two first-order differential equations with  $v = \frac{dy}{dt}$ .
- b. Use pplane or HPGSystemSolver to generate a phase-plane portrait.
- c. Describe the behavior of the solutions.

### CAUTION!

If you use HPGSystemSolver, you have to be very careful with variable names because HPGSystemSolver doesn't let you choose the names of the dependent variables. Make sure that your final results are expressed in terms of the variables given in the problems.