

1. Numerically solve and plot (in phase space and separately) a solution of

$$x' = -y - z$$

$$y' = x + a y$$

$$z' = b + z(x - c)$$

with a = b = 0.2 and c = 5.7. Describe the solution in words. Show your code and plots.

- **2.** Repeat Q1 with with a = b = 0.1 and c = 14.0. Describe the solution in words. Show your code and plots.
- **3.** Repeat Q1 with with a = b = 0.1 and c = 5.0. Describe the solution in words. Show your code and plots.