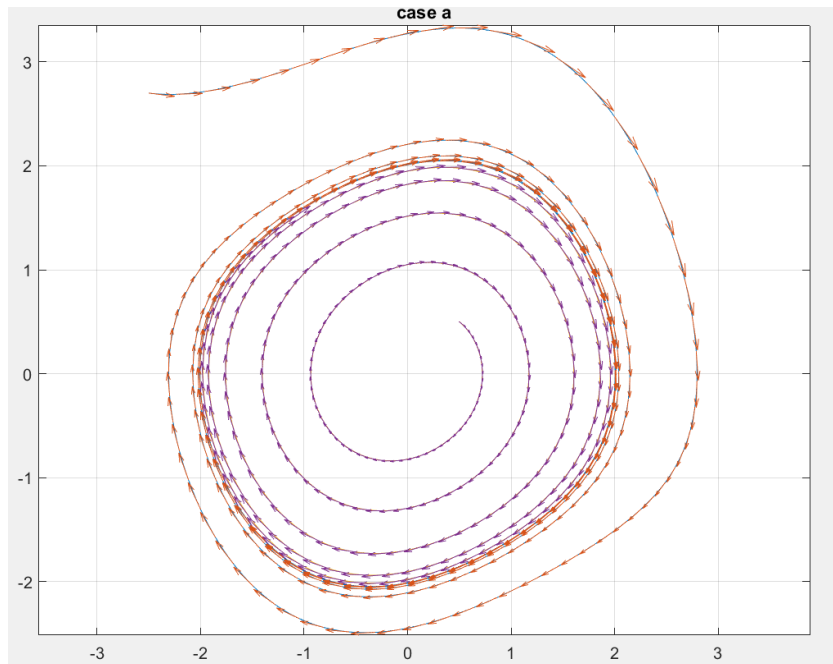# Homework 1

Question 1:

Case (a):

Case (b):

Question 2:

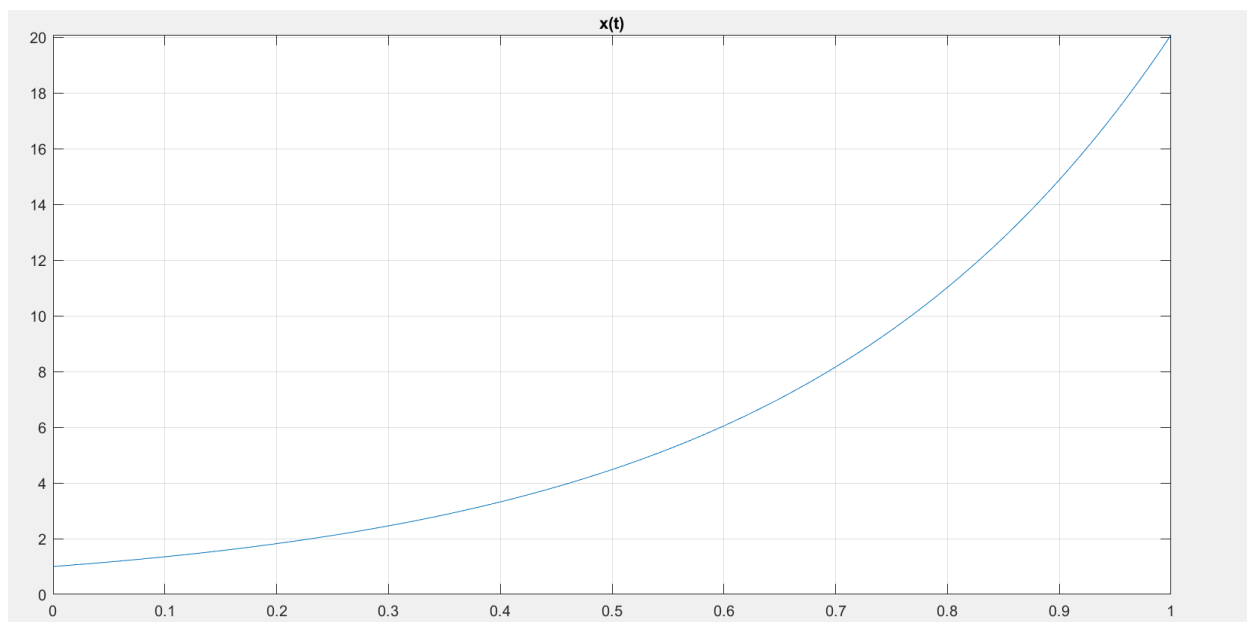x(t)

y(τ)
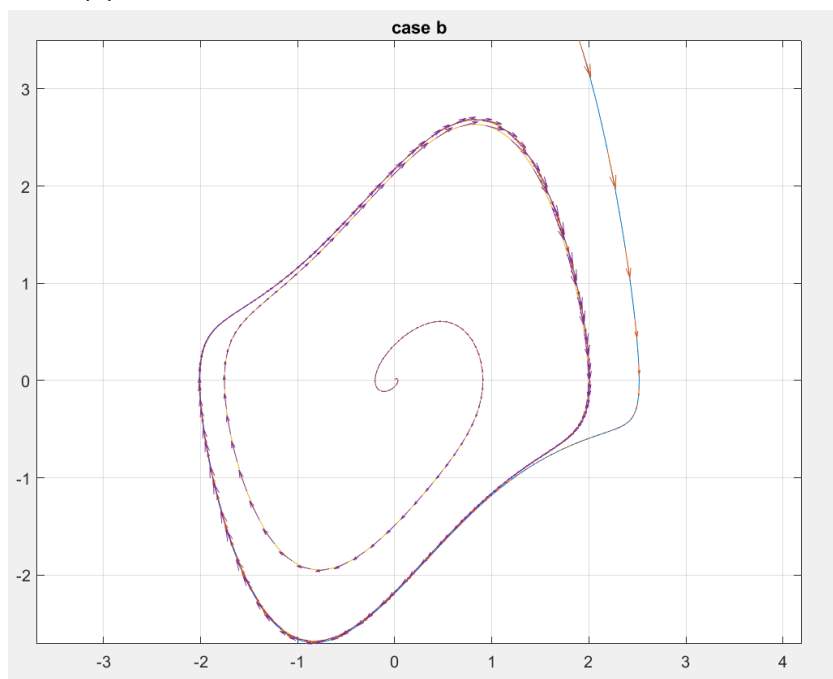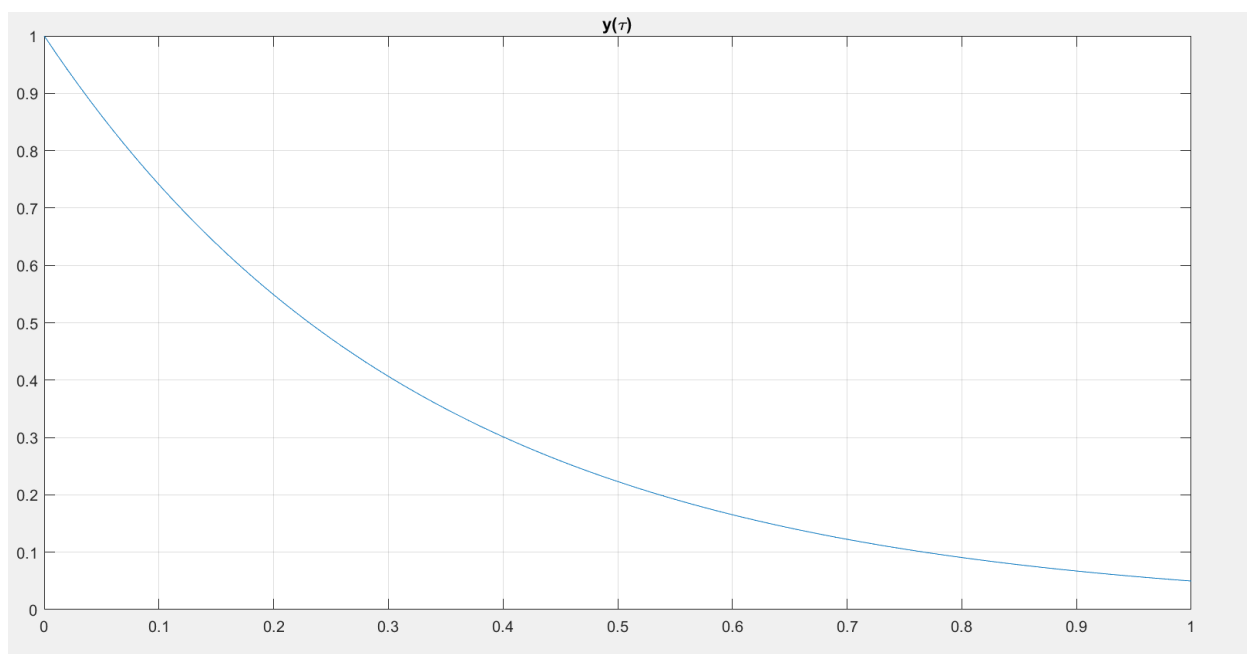
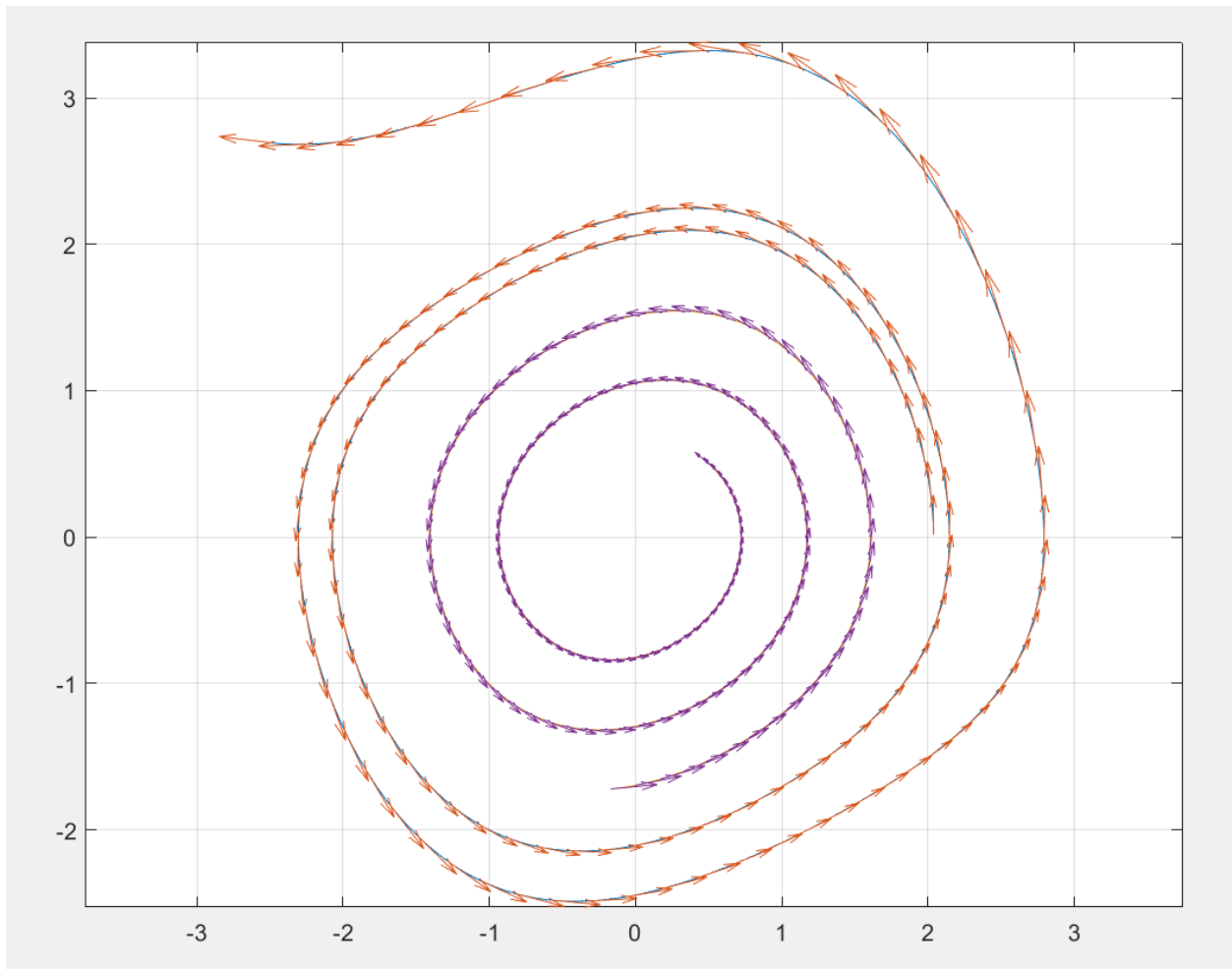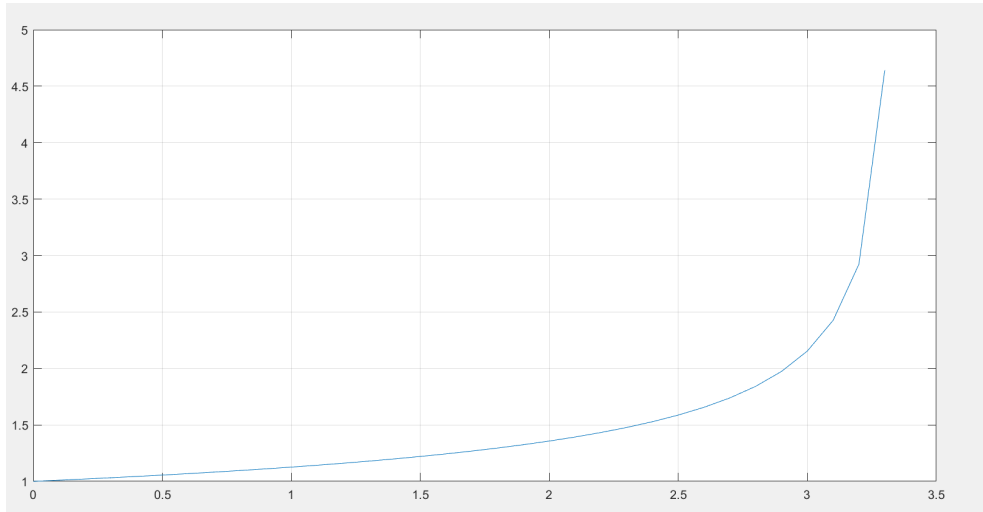**Question 3:**

The plot is similar to question q with the direction reversed in the opposite direction. This is because the derivative is negative of the one in question 1.

Question 4:
Case a:

The ode stops near **t = 4**

Case b:

ODE approaching next nearest equilibrium point