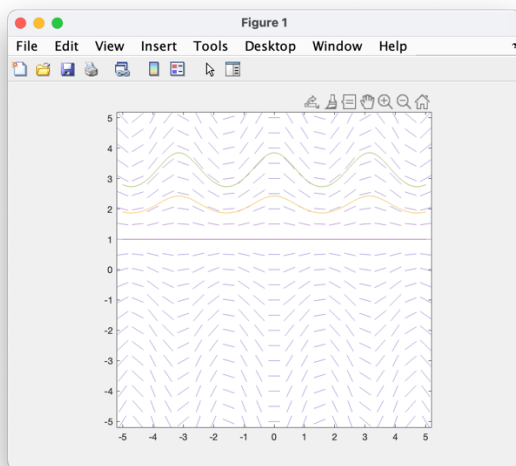Brian Masse (A17991084)
Dr. Hammock
MTH20D
May 1 2024

<div align="center">

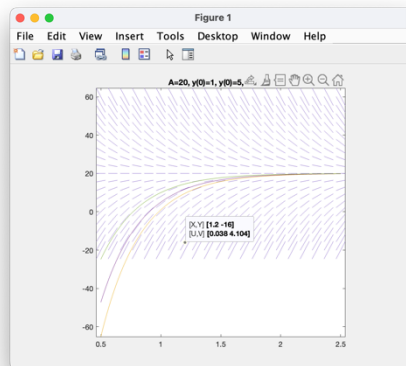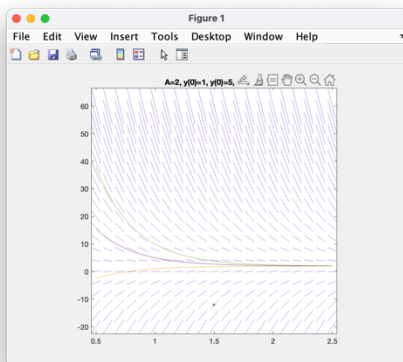MTH 20D MatLab
Homework 2

</div>

Exercise 2.1

C1*exp(t/2) = Ce^(t/2)

Exercise 2.2
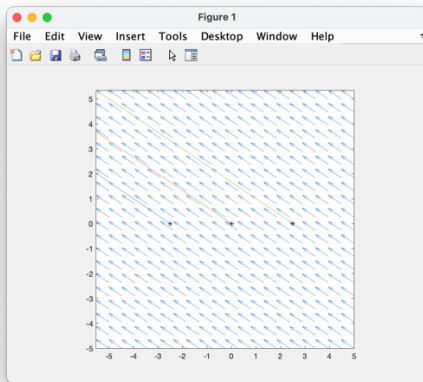

Exercise 2.3

The variable A represents the equalized temperature of the temperature.

Exercise 2.4

a. choose the initial condition y(0) = =6
b. choose A to be the temperature of the fridge = 41
c. it takes the chicken a little over 1 hour (t = 1.05) to defrost
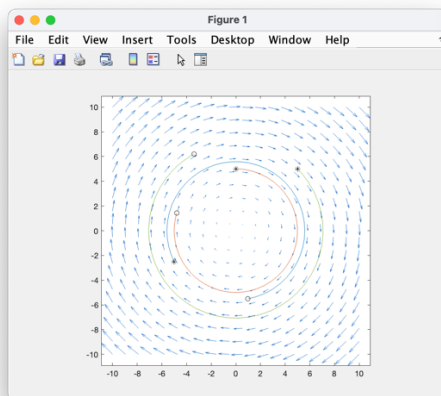
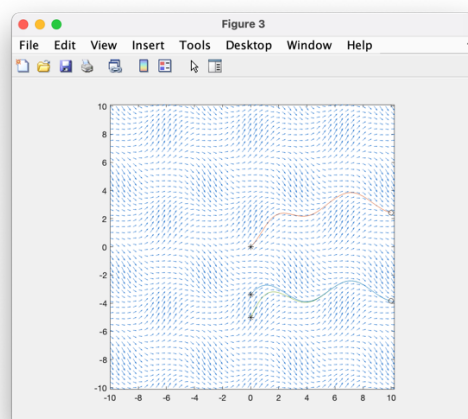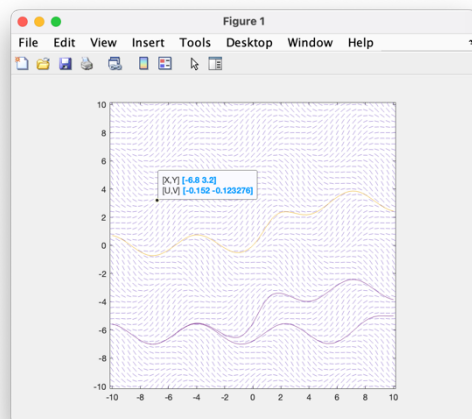d. Roughly 40 minutes. (the chicken now defrosts at t=0.3)

Exercise 2.5

The slope of the line in the (xy) plane is defined by m = (dx/dt) / (dy/dt)

Exercise 2.6

Exercise 2.7

Choosing the same starting values for x(0) and y(0) yields the same curves

Exercise 2.8