MATH 355
HOMEWORK 2

SPRING 2019

The following assignment is to be turned in on
Tuesday, January 29, 2019.

Reading:
Read Chapter 2.1 and 2.2 of the text. This is page 33 - 44 in the text (or 55-66 in the pdf file).

Suggested Problems (not to be handed in):
Pages 60-73 of the text (or 82 - 95 in the pdf file):
2.11 - 2.15 (odd problems)
2.18 - 2.30 (even problems)

Hand-In Homework:
Pages 60-73 of the text (or 82 - 95 in the pdf file):
2.27, 2.29, 2.48

Look at the IVP in exercise 2.173 on page 71 (93 in pdf) of the text. Use DField to obtain graphs of the solution for the window $0 < t < 2$ and $0 < x < 2$ using Euler, Improved Euler, and Runge-Kutta 4 algorithms with step size s=0.01. Then, calculate a formula for the solution. Are the computer graphs accurate? Why or why not?