Math 2208: Ordinary Differential Equations

Assignment 7

Spring 2020   **Subhadip Chowdhury**   **Due: Apr 1**

Reading

Section 3.3 and 3.4 from the textbook .

Homework Problems

■ **Question 1 (3 × 3 points).**

Draw the phase portrait for 3.2.(2,6,8) by hand (you found the eigenvalues and eigenvectors for these problems in assignment 6).

■ **Question 2 (3 × 3 points).**

For each of three systems in question 1, find the solution that satisfies the initial value $\vec{r}(0) = \begin{bmatrix} 1 \\ 2 \end{bmatrix}$.

■ **Question 3 (2+4+4 points).**

Book problems 3.4.(2, 4, 6). For part (e) of problem 4 and 6, use `pplane`.