

Math 313 Project

The Problem:

Choose one of the labs at the end the chapters from the list: 2.1, 2.3-2.5, 3.2-3.3. You may be able to pick others with permission.

The Timeline:

- 11/18 - Pick group and Project
- 12/9 - Project report due

The Rules:

- You may work individually or in a group of two. I will consider groups of three with permission, but the expectations go up as number of group members go up.
- Address the questions in the project in a written a report. The format of the report should be that of a scientific / mathematical article. It should include an **Introduction**, **Model**, **Analysis and Results**, and **Discussion** sections.
- The report should be typed and neat (careful hand written mathematical formulas are OK), the use of \LaTeX is encouraged.
- You can use a computer and/or a calculator to draw graphs and direction fields (you can literally cut and paste if needed).
- Your work on the project must be original. You should not talk to other students about the project, but you can ask me if you have any questions. It is OK to have someone who is not in the class help you with grammar and spelling.
- The report should answer all the questions completely and clearly, without being too long. Only include figures to illustrate a point that is mentioned in the text.

- Try to follow the conventions for presenting mathematical results. You can use the textbook as an example.
- You should:
 - Label the figures [Figure 1, Figure 2, etc.], and include a brief caption.
 - Number your equations with a number in the right margin as follows: (1), (2), etc.
 - Use the equation numbers and figure labels in the text, For example: “The solution to Eq. (4) is shown in Figure 1.”
 - Italicize variables and parameters.
- Don’t procrastinate!

Extra Credit may be given for particularly creative or original solutions. You will be graded on the presentation, but you will not be marked down as long as everything is neat and clearly laid out.