Homework 2

Math 230

due 4:00pm on Wednesday, September 2

Write your solutions to the following problems clearly and neatly. Make sure to explain your reasoning and provide mathematical details that support your answers. For a few tips on writing solutions, see this helpful guide for mathematical writing.

You may write or type your solutions electronically, or write them on paper and scan or photograph them. Upload a single file containing your solutions to the <u>Homework 2</u> assignment on Moodle.

Book Problems

- Section 1.2 #33 (page 34)
- Section 1.3 #13, 14, 16, 17, 18, 19 (pages 49–51)

Note: You do not need to use HPGSolver to plot slope fields. You may use your favorite technology instead.

• Section 1.4 #1, 3, 5, 6, 11 (pages 61–62)

Note: You may use your favorite technology to compute Euler's method. In your solutions, you should include tables and sketches as instructed in each problem.

To do a "qualitative analysis" for #11, you should consider plotting a slope field, finding equilibrium solutions, or considering the long-term behavior of solutions.

• Section 1.5 #2, 3 (page 71)