MATH 242
D. Meade

University of South Carolina
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Homework Problems for Chapter 4

Due: the class meeting following discussion in class

Section	Page	Problems
4.2	137	# 4, 7, 9, 14, 30
4.3	146	# 2, 3, 7, 8, 10
4.5	158	# 7, 14, 18, 27, 53
4.6	164	# 8, 12, 21, 36, 37
4.7	168	# 2, 3, 4, 9, 10
4.10	187	# 1, 4, 6, 14, 20
4.8	176	# 3, 6, 16, 23, 65

Notes

- These problems are chosen as the minimum set of problems that you should solve. Algebra skills are critical. If you can't find the roots of a polynomial, you will have major problems.
- Remember that you can check any solution to an ODE or IVP. There is no excuse for turning in an incorrect solution.
- We will be skipping some of the sections of this chapter. In addition, we will not be talk about the "D" notation (section 2) or linear dependence and independence (section 3).
- For problems 2, 3, 5 in section 4.3, only compute the Wronskian.
- The applied problems are #53 (section 4.5) and # 36, 37, 39 (section 4.6). These problems involve some elements of basic design. The general principle is that you have an idea about some property of the solution and want to determine how to construct the product to ensure the desired behavior is present in the final product (without explicit testing).
- *I do not recommend the memorization of any formulas!* The important idea is that you understand how the equations are derived, how to find a solution to the equation, and then be able to interpret the solution to answer a question.
- If you have any difficulties, please ask for assistance.