

PROBLEM SET #2

MA 109C: INTRODUCTION TO GEOMETRY AND TOPOLOGY

Due on Friday April 19, 2024

Solve the following problems from the textbook *Differential Topology* by V. Guillemin and A. Pollack. You may only use the relevant course material described below.

- Chapter 1, section 6, exercises 7, 10
- Chapter 1, section 7, exercises 6, 22
- Chapter 1, section 8, exercises 6, 7

Relevant course material for this homework: Chapter 1 and Appendix 1.

You may not search the solutions to the homework problems from any source and you must write the homework in your own words. If you collaborated with other students, you must list their names on the solutions.

I strongly recommend that you solve, but not submit solutions for, the following additional problems from the textbook.

- Chapter 1, section 6, exercises 1, 2, 3, 4, 5, 6
- Chapter 1, section 7, exercises 11, 14, 16, 17, 18
- Chapter 1, section 8, exercises 3, 8