

18.950/9501 (S20): HOMEWORK 9

The book references are to do Carmo, *Differential Geometry of Curves and Surfaces*. (The numbers for the assigned problems are the same in both editions of the book.)

Due: Friday, May 1, on Gradescope.¹

Exercise 1. Chapter 4–5, Problem 3.

Exercise 2. Chapter 4–6, Problem 1.

Exercise 3. Chapter 4–6, Problem 4.

Exercise 4. Chapter 4–6, Problem 9.

Exercise 5. Chapter 4–6, Problem 10.

Exercise 6. Show that any connected curve in the sphere with constant geodesic curvature is, up to rotation, contained in a parallel.

Date: April 24, 2020.

¹See the course website, <https://math.mit.edu/~phintz/18.950-S20/>, for homework policies.