<div align="right">Due: November 20</div>

HMC   Math 142   Fall 2023
Prof. Gu
Problem Set 9

Start this assignment early!

Read:

- Baby Do Carmo, Differential Geometry of Curves and Surfaces: Sections 4-2, 4-3 of Chapter 4.

- Read and fill out the blanks for the most recent handout.

- Lecture Notes.

Do:

A: Problems on Reviewing of Distance Preserving Mapping on R^3.

- a) Problem 8 on page 228, section 4-2, Baby Do Carmo.

B: Problems from Lectures

- a) Find an example (different from the one we have in the class) of two surfaces which is locally isometric but not globally isometric.

C: Other Problems

- a) Problem 1 on page 227, Section 4-2, Baby Do Carmo.

- b) Problem 2 on page 228, Section 4-2, Baby Do Carmo.

- c) Problem 3 on page 228, Section 4-2, Baby Do Carmo.

- d) Problem 6 on page 228, Section 4-2, Baby Do Carmo.

- e) Problem 11 on page 229, Section 4-2, Baby Do Carmo.

E: Reminder

- **Problem Sessions: Tuesday 5:00–6:00 pm, BK 134**