Homework 10

Math 282 Computational Geometry
Spring 2019

Solve the following problems from the textbook, and submit your solutions either on Moodle or in the homework mailbox (RMS level 3, near the fireplace) by 4:00pm on **Friday, April 26**.

1. Exercise 6.2

2. Exercise 6.13

3. Exercise 6.16

4. Exercise 6.17 — If you want to count vertices, edges, or faces on a physical model of the polyhedron in Figure 6.10(b), come to Prof. Wright's office.

5. Exercise 6.18 — A *topological sphere* is any surface homeomorphic to a sphere. Roughly speaking, the surface can be deformed (without tearing or gluing) into a sphere.

6. Exercise 6.19 — A *topological disk* is any surface homeomorphic to a disk. Roughly speaking, the surface can be deformed (without tearing or gluing) into a disk.

7. Exercise 6.20

8. If every face of a polyhedron is a triangle and the degree of each vertex is either 5 or 6, then how many vertices have degree 5? Why?