Differential Topology Problem Set #6

Due: Thursday, May 5

1. Chapter 2, Section 4, #1.

2. Chapter 2, Section 4, #5.

3. Chapter 2, Section 4, #7.

4. Chapter 2, Section 4, #8.

5. Chapter 3, Section 2, #2.

6. Chapter 3, Section 2, #4.

7. Chapter 3, Section 2, #14.

8. Chapter 3, Section 3, #7.

9. Chapter 3, Section 3, #9.

Additional problems for graduate students, or undergraduate extra credit

10. Chapter 3, Section 3, #17. If you want to use other exercises, as is suggested in the hint, be sure to PROVE any of the statements you use.

11. Calculate the Euler characteristic of S^2. Calculate the Euler characteristic of the two-torus $T = S^1 \times S^1$.