## Topics in Topology and Geometry Assignment #4: Due Wednesday, 4/30/03

**Midterm exam:** Monday, May 5, in class. The exam will cover sections 3-4 and 4-1 through 4-4 in do Carmo. You may use two  $8\frac{1}{2}'' \times 11''$  one-sided pages (or one sheet written on both sides) of your own handwritten notes. No photocopied or printed material is allowed. You may not share notes with other students.

## I. Practice problems:

1. do Carmo, Section 4-4 (pp. 260–264), #3, 6, 9.

## II. Required problems:

- 1. do Carmo, Section 4-4 (pp. 260–264), #2.
- 2. do Carmo, Section 4-4 (pp. 260–264), #5.
- 3. do Carmo, Section 4-4 (pp. 260–264), #11.
- 4. do Carmo, Section 4-4 (pp. 260–264), #12.
- 5. do Carmo, Section 4-4 (pp. 260–264), #13.
- 6. do Carmo, Section 4-4 (pp. 260–264), #15.
- 7. do Carmo, Section 4-4 (pp. 260-264), #18.
- 8. do Carmo, Section 4-4 (pp. 260–264), #20.