Math 3593H   Honors Mathematics II Spring Semester 2011

Assignment 11 - Due Thursday 4/14/2011

Read: Hubbard and Hubbard Sections 6.3 and 6.4.

Exercises:
Section 6.3 (pages 582-583): 1, 2, 3, 4*, 5, 6*, 7, 8*, 9, 10*, 11*, 12, 14.
Section 6.4 (page 594): 1*, 2, 3, 4*, 5, 6, 7, 9a.

Comments:
We are piling on the notation in these sections, and the great thing is not to be deterred by it. the notation is at its worst in the abstract definitions and theorems, such as Theorem 6.4.10 which says that an integral is independent of parametrizations. The important thing is to have an idea of what is being said, rather than being able to cope with the details of notation, and to be able to evaluate integrals which appear in the exercise and examples. Thus with orientation, it is not so hard to realize what this is and what it means, but the way orientation is defined in terms of a non-vanishing form field, is perhaps a little surprising. The important thing is to know that there is such a thing as orientation, and to recognize when a manifold is oriented.

I suppose this is orientation week.