

UH - Math 7350 - Dr. Heier - Spring 2012

HW 4

Due 04/05/12, at the beginning of class.

Use regular sheets of paper, stapled together.

Don't forget to write your name on page 1.

1. (2 points) In your own words, give a careful proof of Lemma 6.17: If M is a connected smooth manifold, any two points of M can be joined by a piecewise smooth curve segment.
2. (1 point) Problem 6-9 (page 152)
3. (3 points) Problem 6-10 (page 153)
4. (2 points) Problem 11-1 (page 286)
5. (2 points) Problem 11-2 (page 286)