Differential Topology (M382D)
Homework 8. Due April 2

Problems in Guillemin/Pollack

Chapter 3, §2 (p. 103): 2, 7, 11, 16, 17

Note: On problem 2.7, you cannot choose the BASIS continuously on all of S^2, but you can choose the ORIENTATION continuously. Pick a basis that varies continuously on S^2 minus a point or two, and then pick bases over the missing points whose orientations agree with the rest.

Chapter 3, §3 (p. 116): 1, 2, 4, 7, 10

Challenge Problems – Do not turn in

Chapter 3, §2 (p. 103): 18, 22, 27, 28

Chapter 3, §3 (p. 117): 6 (Use winding numbers, not properties of real numbers. This problem is too easy if you limit your attention to the real line). 8, 9, 11, 13, 14, 16, 17