

207 Homework #2 Due Wednesday, Oct 11.

- Read Pugh, Chapter 2, Sections 4-6 and Section 10.
- Chap 2: [7, 8, 25, 29, 58, 62] (warmup, don't turn in), 30 (easier), 36 (easier), 44, 49 (not easy, but fun), 56 (one idea needed), 66 (important), 78 (cool), 81 (EXTRA CREDIT. important example), 117 (a "taste" of chaotic dynamics. You should definitely draw the graph of the baker's map, a.k.a. the tent map!).
- Check out the Berkeley prelim problems on page 147. Do you see a path to solve any of them? You don't need to tell me your answer to this question, but feel free to give any feedback on the course so far.

Back in 1990, when I was a first year Ph.D. student there, I had to pass the Berkeley prelim (it also has questions in other areas of undergraduate math, such as complex analysis, groups, rings, fields, and most importantly, linear algebra). To pass it (at least back then), you needed to get about 65% correct on a timed test, and you had a choice of problems to write up, so you weren't forced to do every one of them (this standard might have changed in the intervening 33 years). I failed it on my first attempt (not uncommon) but passed it a few months later. The way you study for the Berkeley prelim? Do lots of old prelim problems!