

Classical Analysis – Math 108b

Homework # 1

due 11 am Monday, January 17, 2005.

1. Exercise 9.13 in [Rudin] (i.e., Exercise 13 in Chapter 9 of Walter Rudin, Principles of Mathematical Analysis, Third edition.)
2. Exercise 9.15 in [Rudin].
3. Exercise 9.17 in [Rudin].
4. Exercise 9.23 in [Rudin].
5. Show that the $n \times n$ matrices with determinant equal to one form a C^1 -surface of dimension $n^2 - 1$ in \mathbb{R}^{n^2} .