

## MATH 104-1: Introduction to Analysis

Homework #12

*Due December 4, 2015*

All problems are from Lebl, *Basic Analysis*, unless stated otherwise. If you use an exercise that has not been shown on a previous assignment or in class, prove it first before applying it.

1. Lebl Exercise 7.2.7
2. Lebl Exercise 7.2.8
3. Lebl Exercise 7.2.11
4. Lebl Exercise 7.2.13 (Note that  $\overline{B(x, \delta)}$  is defined to be the closure of the open ball  $B(x, \delta)$ , and does not, at least by definition, mean the closed ball, which is sometimes written as  $\overline{B}(x, \delta)$ .)
5. Lebl Exercise 7.3.1
6. Lebl Exercise 7.3.3
7. Lebl Exercise 7.3.7
8. Lebl Exercise 7.3.12