

Problem Set 4
Due Wednesday, May 2.

Real Analysis

Math 131A, Spring Quarter 2012

1. Do problems 9.1 (b), 9.4, 9.9, 9.10, 9.11, 9.15 in the textbook.
2. Suppose $(s_n), (t_n)$ are sequences of real numbers such that for each $\varepsilon > 0$, there is $N \in \mathbb{N}$ such that for all $n > N$ we have $|s_n - t_n| < \varepsilon$. Let $s \in \mathbb{R}$ such that $s_n \rightarrow s$. Prove that also $t_n \rightarrow s$.