Math 131B, problem set 01 Outline due: Wed Aug 28 Complete version due: Wed Sep 04 Last revision due: Mon Sep 23

1. 1.1.2.

- 2. Suppose S and T are nonempty bounded subsets of **R** such that for every $s \in S$ and $t \in T$, we have that $s \leq t$.
 - (a) Prove that if $t \in T$, then $t \ge \sup S$.
 - (b) Prove that $\sup S \leq \inf T$.
- 3. 2.2.3.
- 4. 2.3.1.
- 5. 2.3.5.
- 6. 2.4.1.
- 7. 2.4.10.