

MA 425-002 Homework

S. Schecter

September 30, 2005

1. Let (x_n) be a sequence that is not bounded above. Show that there is a subsequence (x_{n_k}) such that $\lim(x_{n_k}) = \infty$.
2. Sec. 4.1 problem 8. See hint in back of book. In this problem it helps to multiply $|\sqrt{x} - \sqrt{c}|$ by $\frac{\sqrt{x} + \sqrt{c}}{\sqrt{x} + \sqrt{c}}$.
3. Sec. 4.1 problem 14. For part (b) you will find Theorem 2.4.8 and Corollary 2.4.9 helpful.