

Math 131  
Warm-up 17

Name:

Let  $\{x_n\}$  be a bounded sequence of reals, and let  $A = \{x \in \mathbb{R} \mid x < x_n \text{ for infinitely many } n\}$ . Prove that for some  $p \in \mathbb{R}$ , either  $A = (-\infty, p)$  or  $A = (-\infty, p]$ .