## Math 330 (Number Systems), Section 3 (Dmytro Savchuk) Spring 2010

## Homework assignment 10 (due Friday, April 9)

- 1. Find  $\sup \{x \in \mathbb{R} : 0 < x < 3\}$ . Justify your answer.
- 2. Let  $A=\{-\frac{1}{n}:n\in\mathbb{N}\}\subset\mathbb{R}.$  Find (and justify your answer)
  - (a)  $\sup A$
  - (b)  $\inf A$
  - (c)  $\max A$  if it exists. If it does not exist, prove this.
  - (d)  $\min A$  if it exists. If it does not exist, prove this.