Math 3325
Dr. Duval

PRINCIPLES OF MATH
Homework 6
due Thursday, October 10

1. Let $\mathbb{R}^{+}$denote the set of positive real numbers. Prove that

$$
\bigcap_{r \in \mathbb{R}^{+}}(-r, r)=\{0\}
$$

2. Prove that

$$
\left(\bigcup_{\alpha \in \Delta} A_{\alpha}\right) \cup\left(\bigcup_{\beta \in \Gamma} A_{\beta}\right)=\bigcup_{\omega \in(\Delta \cup \Gamma)} A_{\omega}
$$

