Name:_____

MA 5320 Quiz 2

1.7: 2, 3, 7

1.8: 3, 7, 15

1. Prove the lemma

Lemma: Let S be a bounded and nonempty subset of $\mathbb{R}$ and let $\alpha = \sup(S)$. For all $\varepsilon > 0$ then there is some $x \in S$ so that $\alpha - \varepsilon < x \leq \alpha$.

1.9: 2, 7