Name:

Math 131 Warm-up 7

For each of the following statements give a proof or counterexample:

- (1) If $S \subseteq \mathbb{R}$ is closed, non-empty, and bounded below, then S contains its glb.
- (2) If $S \subseteq \mathbb{R}$ is non-empty, bounded, and contains its glb and its lub, then S is closed.