## Real Analysis - HW 1

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This first homework for real analysis is due this coming Friday, August 28 by 3:00 PM. You should type it with LATEX and email both your raw .tex document as well as the processed PDF. There is only one problem but, like all homework assignments, I expect it to be clear and correct. I recommend that you bring a printed draft to class on Wednesday that I can critique.

1. Let  $S \subset \mathbb{R}$  be non-empty and bounded below. Prove that S has an infimum.