

Ross, Section 3: Exercises 3.5(b), 3.6 (on page 19).

Abbott, Section 1.3: Exercises 1.3.1(a), 1.3.3, 1.3.7, 1.3.9, 1.3.11 (on pages 18–20).

Remark: All the proofs that you need to do are short and simple, so *please* write your proofs in detail, justifying every step directly from the definitions. Use your best skills to make your proofs clear and readable – if there are several steps in a proof, then start each step on a new line, stating explicitly what you are proving; use underlining, indentation, leaving enough space, starting on a new line, numbering the different parts of your proof, etc. Lemma 1.3.8 in Abbott (page 17) is very useful in proving that an upper bound of a set is the lowest upper bound; you may use this Lemma in your proofs.

In Exercise 1.3.3, for example, to conclude that there exists a number $s = \sup B$, you have to use what is given in the problem to first prove that (1) $B \neq \emptyset$ and, (2) B is bounded above.

Abbott, Section 1.4: Exercises 1.4.1, 1.4.3 (on page 24).