• From Section 1.2:
  1. Please solve exercises 1.2.1 and 1.2.5(b) from the textbook.

• From Section 1.3:
  1. Please solve exercise 1.3.5 from the textbook – including a proof of your conjecture in part (c).
  2. Please find the suprema and infima of the following sets:

\[
\begin{align*}
(a) & \{ n \in \mathbb{Z} : n^2 \leq 10 \} \\
(b) & \{ n/m : n, m \in \mathbb{N} \text{ and } n + m \leq 15 \}
\end{align*}
\]

Make sure you prove that the values you have chosen are, in fact, the supremum and infimum!

• From Section 1.4:
  1. Please solve exercises 1.4.2 and 1.4.3.