Before beginning this homework assignment, please review the guidelines for submitting homework. Please write down the total amount of time spent working on the assignment at the top of what you turn in. Remember that at least one problem from each assignment must be written in \LaTeX.

Remember that if you make use of any sources other than the text or class notes you need to cite it.

You should also start thinking about your final paper. The remaining homework assignments in the course are intentionally smaller in order to give you time to work on it.

1. Paths and Sequences

To prove 9.3.27 and 9.3.28 below combine previous results (not all of which will be discussed in class).

1. Read Section 9.3.1 and 9.3.2. Focus on how to construct subsequences using induction.
2. (Graded) Do Exercise 9.3.17
3. (Graded) Prove 9.3.27
4. (Graded) Prove 9.3.28