Bounded Sequences

Reading

Section 11.1 from 548

Problems

- Practice Problems: 11.1 61, 65, 67, 73, 74, 83
- Problems to turn in: 11.1 70, 84
- Challenge (optional): 11.1 85, 86, 87

Topics to know

1. Passing a sequence through a function
    - Example for $n^{1/n}$
2. Definition of bounded sequence
3. Convergent sequences are bounded (theorem 5)
4. Bounded monotonic sequences converge (theorem 6)
5. How to use theorem 6 for recursively defined functions:
    - First guess what the limit would be if it existed
    - Show that this limit acts as a bound (proof by induction)
    - Show sequence is increasing/decreasing (proof by induction)