Induction
Where We Are Now

- Week 5 covered these key topics:
  - Mathematical induction
  - Variations on induction
    - Multiple base cases
    - Larger step sizes
  - Complete induction
  - Applications to just about everything 😊
  - DFAs and formal language theory.
Where We're Going

- Week 6 explores finite automata:
  - Regular Languages (all week)
  - NFAs (all week)
- You'll get a lot of experience with these concepts by playing around with them and engaging them. In the meantime, make sure you're caught up on definitions (alphabets, strings, languages) and notation ($\epsilon$, $\Sigma$).
Things You Should Do Today

- Pick up your midterm, read over it, and read over the solutions.

- Talk to the course staff (right now is fine!) with any questions you have about the exam.

- *Practice proof setup* unless you're already rock-solid on it. This was the single biggest determining factor in how people did on this midterm, so it's a good idea to go practice it!

- Keep working on PS5. Know how to set up all of the problems and have a clear sense of where you're beginning and what you need to prove. Get the course staff to sign off on your setups.
Midterm Debrief