Assignment 5 (10/8)

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Note: Although I don't expect all of you to start writing proofs using full sentences and lots of words (at least not immediately); the following is the bare minimum that I expect:

- The lines should be connected by either words or symbols (e.g. " $\implies$ ", "$\therefore$" etc.)

- In a proof by induction, mention clearly what the initial step is, which one is the induction hypothesis and where the induction hypothesis is being used. The other sentences in the proof are of less importance and it's OK to skip them in assignments (Do NOT skip them in Exams).

Problem 1

Problems 1.8.$(2, 4, 5)$ from Text. Prove all of these using induction.

Problem 2

Problems 1.8.$(11, 16, 17)$.

There will be a THIRD office hour every week on Fridays right after class (12:30-2PM). Please come to Office hours to clear any doubts you have.