- Language of Math: connectives, quantifiers, symbolic sentences, negation, truth tables (Ch 1,2,7).
- Proofs: direct proofs, proofs by contraposition and contradiction; implication  $(\Rightarrow)$  and double implication (iff,  $\Leftrightarrow$ ) (ch 3,4).
- Induction: (ch 5).
- Sets and set operations.(ch 6, 7).
- Functions: Domain, Codomain, Image, Composition, Inverse, Injections, Surjections (ch 8,9).