Math 201: Preparing for test 2

Chapters II and III (excluding section 8) of Hammack

* direct proofs
* proof by cases
* well-ordering principle
* proof by induction (ordinary or strong)
* proof by contrapositive
* proof by contradiction
* “if and only if” proofs
* counter-examples
* well-ordering principle, division algorithm
* modular arithmetic

Types of problems:

* proofs (direct, cases, induction, contrapositive, contradiction)
* definitions
* fill in the blank
* find a counter-example
* given a proof with a missing part, fill in the missing part
* given a false “proof”, correct it