

MA 210 Exam #1 Review

Exam #1 will be on Friday, February 13, in class.

1. Read and review the “Class Log” from the course website through Monday, February 9.
2. Read and review all of the problems and their solutions that we did in class. Read and review all of the homework problems, including solutions posted on the course website.
3. In particular be able to do the following, and problems similar to the following. I may directly ask some questions just like these, but I may also ask related questions that are not exactly like these.
 - (a) Know how to solve problems 1–19 in “Problems”, but skip item 4 of Variations on Game of 100.
 - (b) Know how to solve all of the problems considered in class.
 - (c) Know how to solve all of the problems in Homeworks #1–5.
 - (d) Be able to identify particular problems that exemplify various items in Polya’s Four Phases of Problem Solving.
 - (e) Understand what the definitions of “good” (or key) positions, and “bad” positions are. Be able to use this definition to identify good and bad positions in a game.
 - (f) Understand how to represent nonnegative integers in binary, and how to use this to construct the and use the Number Guessing Cards.
 - (g) Know how to construct proofs by contradiction.
 - (h) Know how to construct proofs by induction.
 - (i) Understand the difference between closed and recursive formulas.