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MATH 130: Spring 2011
Final exam study guide

The Final Exam is cumulative, with an emphasis on the last third of the course (Chapters 7, 8 and 9). You can expect **roughly** $1/4$ of the questions to cover Chapters 1, 2 and 3, $1/4$ of the questions to cover Chapters 4, 5 and 6, and $1/2$ of the questions to cover Chapters 7, 8 and 9.

The Final Exam will **not** have one of the proofs from Exam 2. It will not have any proof where you need to have a new idea. However, it can have a proof that follows directly from the definition with some careful thinking. An example of such a proof is Problem 2 on page 130 of P & B.

Base 5 could be on the Final.

One effective way to study for the final would be to do the following things, in order:

1. Finish Homeworks and Quizzes 14 and 15.
2. Do Practice Exam 3.
3. Go over each of the assigned homework problems and ask yourself if you could solve it. Figure out what the problem is asking about. Is it a technical computation? A teaching sequence? A good picture or a good explanation? Is it teacher knowledge? Which concepts does it cover?
As you go, write down (maybe on the review documents from Exams 1, 2 and 3) which concepts you struggle with, which homework problems you cannot solve, and which concepts are important. To know which concepts are important, consider how many questions cover the concept, how much it comes back later, and if it is ever a Quiz question.
4. Do the same with the Worksheet problems.
5. Study each of the concepts and areas that you found you struggled with. To study, read the book, read your class notes, and read your homework and quiz solutions. If any relevant questions made it on the Exams or the Practice Exams, read your solutions from there too. If you do not understand something, ask me or a friend.
6. Make sure you can do every Quiz question. If a question made it on a Quiz, it means that it was important enough for me to want to look at it!
7. Make sure you can do every question from every Practice Exam (1, 2 and 3) and every Exam (1 and 2). Make sure to look at the solutions of the Practice Exams to see how we like our solutions!

8. Go over the review documents and compare them to the Exams and Practice Exams. Try to get a feel for what we think was important from each Chapter. Try to guess what will be on the Final.
9. Study what is important and what you think will be on the final.