This is an open-book, -library, -internet take home exam. You are not allowed to collaborate; I am the only person you are allowed to consult. I will be available in my office 11am-12pm Monday through Wednesday next week to answer questions, and can often arrange to meet with you at another time if you send me email. (You can also email me questions at any time of the day.) As always, you should explain your work, writing complete sentences with reasonably correct grammar.

In a sense the exam is really just your last homework assignment, but you should treat it with much more care. First, it’s worth roughly nine times more than a standard homework assignment. Second, you don’t have the pressure of studying for an in-class final, so you should expect to spend at least as much time working on this as you would have spent studying otherwise. Some of that time will be spent reviewing chapter 10 and mastering the concepts which you need for the problems listed below. I intentionally haven’t included problems from the beginning of the section, but you might find it helpful, for example, to do some of problems 1-7.

Please note: its not the intention that you copy any proof from some other textbook, but if you make heavy use of ideas from another source you should certainly cite it. (Having said that, I know what books and websites many people will go to and intentionally chose problems which arent shown in those sources.)

**Due Thursday, 12/18 in my mailbox in Vincent 107 by 2:30pm.**

**Final Exam Problems**

From Section 10.5: # 8, 9, 13, 25, 29, 31, 32, 41

You may use Corollary 8 instead of Theorem 7 for problems 8 and 9.