Answers to homework problems should include any computations necessary to get the final answer. To receive full credit, you must also explain what you've done and why you did it. You should write in complete sentences with (reasonably) correct grammar. Granted, this is not a writing intensive course, but it *is* a 5000-level mathematics course, and at this level you're expected to be able to explain your work in a coherent, organized and logical manner.

Note that many of the problems in the textbook have answers in the back. If I assign any of those, explaining your reasoning becomes even more important, because it's assumed you have the right answer. In other cases it might be a good idea to do those problems and check your answers before working on the assigned problems.

In particular, if you don't have an extensive background with the material in Chapter 1, you might want to work on problems 1.01-1.10 as well as some of the later problems with answers in the back, even though they aren't assigned.

Chapter 1: 1.11, 1.31, 1.42, 1.43

1.42 is similar to an example in class; 1.43 is similar to 1.42, but with different probabilities.

Update/Correction: 1.43 is a typo; it was supposed to be *1.44*; that's the problem which is similar to 1.42. (1.43 isn't so much...) Sorry for the confusion. On the homework you can turn in *either* 1.43 or 1.44 – choose whichever one you think you've done the best.

Chapter 2: 2.02, 2.05. Also add:

2.A: State and prove the precise conditions under which a random variable X on a finite probability space has entropy H(X)=0.

(These topics will be covered in class on Monday, 9/18)

Jonathan Rogness <rogness@math.umn.edu> September 22, 2006