

ECEn 370 Winter 2012

Homework Problem Set 1

Due at 8 AM, Friday, January 13, 2012 in CB Fourth-Floor Homework Box.

The problems are from Bertsekas and Tsitsiklis, *Introduction to Probability, 2nd Ed.* and from Hsu, *Probability, Random Variables, and Random Processes* (Schaum's Outline). This is a one-and-a-half week problem set and so is a bit longer than will be normal. Please take the time to firmly understand the material, especially MATLAB, before moving on. The solutions to all of the Bertsekas problems are found on the publisher's website (<http://athenasc.com/probbook.html>), but should be used only after a serious first attempt by yourself and primarily to check your answers. Given the resources provided, I expect you to get all of the homework problems correct. You will find that this course is cumulative so getting a solid understanding now will pay off in the future.

1. (5 pts) Chapter 1 Problem 1.
2. (5 pts) Chapter 1 Problem 2.
3. (5 pts) Chapter 1 Problem 5.
4. (5 pts) Chapter 1 Problem 6.
5. (5 pts) Schaum's 1.36
6. (5 pts) Chapter 1 Problem 14.
7. (5 pts) Chapter 1 Problem 17.
8. (5 pts) Chapter 1 Problem 20.
9. (5 pts) Schaum's 1.49
10. (5 pts) Schaum's 1.51.
11. (5 pts) Schaum's 1.59.
12. (5 pts) Schaum's 1.60.
13. (30 pts) MATLAB Assignment. Please do the tutorial found accompanying this homework on the course website (HW1_MATLAB_tutorial.pdf). Spend the time to understand what is going on so that way you are able to easily write m-files for future assignments. Turn in the required materials indicated at the end of the assignment.