

STAT 538 Homework 3
Out February 5, 2008
Due February 12, 2008
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For the problems in this homework, which all deal with convexity, try to find the most elegant solution. Elegant can mean that you give a short proof, based on an example in the textbook, or a property proven in the text, instead of a long proof starting from the definitions.

Problem 1 – When does one half-space contain another? B&V problem 2.6

Problem 2 – Some sets of probability distributions. B&V problem 2.15

Give short proofs or explanations.

Problem 3 – Strictly positive solutions of linear equations. B&V problem 2.20

Problem 4 – Separating hyperplanes. B&V problem 2.21