

# STAT 405-01: Mathematical Statistics I

## Problem Set 1

Assigned 2015 August 25  
Due 2015 September 1

**Show your work on all problems!** Be sure to give credit to any collaborators, or outside sources used in solving the problems. Note that if using an outside source to do a calculation, you should use it as a reference for the method, and actually carry out the calculation yourself; it's not sufficient to quote the results of a calculation contained in an outside source.

**1 Hogg 1.5.8**

**2 Hogg 1.6.3**

**3 Hogg 1.6.9**

**4 Hogg 1.7.11**

**5 Hogg 1.7.21**

**6 Hogg 1.7.22**

**7 Extra Credit**

Follow one of the following tutorials (or substitute one for the statistical package in the scripting language of your choice):

- (a) The interactive R tutorial at <http://www.datamind.org/>. (R is a computer language specialized to statistics.)
- (b) The scipy stats tutorial at <http://docs.scipy.org/doc/scipy/reference/tutorial/stats.html> (Scipy, or Scientific Python, is a library for the python programming language.)