

MATH 241 Fall 2014 Homework #6

Professor Adam Kapelner

Due 5PM in my office, Tues Oct 14, 2014

(this document last updated Tuesday 14th October, 2014 at 3:21pm)

Instructions and Philosophy

Once again, the path to success in this class is to do many problems. Unlike other courses, exclusively doing reading(s) will not help. Coming to lecture is akin to watching workout videos; thinking about and solving problems on your own is the actual “working out”. Feel free to “work out” with others; **I want you to work on this in groups**. This one is a short workout.

Reading is still *required*. For this homework set, please read the binomial and negative binomial variable section of Chapter 2.

The problems below are color coded: **green** problems are considered *easy* and marked “[easy]”; **yellow** problems are considered *intermediate* and marked “[harder]”, **red** problems are considered *difficult* and marked “[difficult]”; and **purple** problems are for *extra credit* which are also marked “[E.C.]”. The *easy* problems are intended to be “giveaways” if you went to class. Do as much as you can of the others; I expect you to at least attempt the *difficult* problems.

This homework is worth 100 points but the point distribution will not be determined until after the due date. Late homework will be penalized 10 points per day up to a maximum of three days.

15 points are given as a bonus if the homework is typed using L^AT_EX. Links to installing L^AT_EX and program for compiling L^AT_EX is found on the syllabus. You may also use [writelatex.com](http://www.writelatex.com) which is a web service (you don’t have to install or configure anything on your local computer). If you are handing in homework this way, read the comments in the code; there are two lines to comment out and you should replace my name with yours and write your section. If you are asked to make drawings, you can take a picture of your handwritten drawing and insert them as figures or leave space using the “\vspace” command and draw them in after printing or attach them stapled.

The document is available with spaces for you to write your answers. You are free to handwrite on separate paper if you wish but I STRONGLY recommend to write on a printout of this document since you will always have the questions handy to study from (and it is easier for me to grade accurately). Keep this page printed for your records. Write your name and section below where section A is if you’re registered for the 9:15AM–10:30AM lecture and section B is if you’re in the 12:15PM–1:30PM lecture.

NAME: _____ SECTION (A or B): _____

The Binomial Distribution Since we haven't covered much else, this majority of this assignment will be about this distribution.