

Midterm Exam

Fall 2011

Instructions: You cannot use any books or notes. You can use a calculator, but not a computer. You are not allowed to communicate with anyone (verbally, in writing, or electronically), except for me, during the exam period (and at most I will clarify a problem — I won't give you any help with solving the problems).

Express probabilities as exact values (as fractions, or in decimal form), or else round them to three significant digits. (Note: 0.00402 has three significant digits, and 0.004 only has one significant digit.) Do not express final answers as expressions that need to be evaluated. (So a final answer should not include a binomial coefficient or even a factorial.)

Put all of your work on these sheets. If you need more room, direct me to look for additional work on the back of a page. **Draw boxes around your final answers!**

There are five problems worth 20 points each. To receive full credit, you need to **justify your answers**, using notation and terminology properly, and clearly defining any events that you use.