Assignment #1 — Due Wednesday, September 10, 2008, by 5:00 P.M.

Turn in homework in lecture, discussion, or your TA’s mailbox. Please circle the discussion section you expect to attend to pick up this assignment.

311: Monday 1:20–2:10
312: Monday 12:05–12:55

- Please see the syllabus for the course policy homework assignments:
  - There are severe penalties for late work.
  - Your work must be clear and well-organized with all problems in order.
  - Grading is on a 0 to 4 point scale. (Think of each assignment as getting an A, B, C, D, or F and a corresponding number of points from 4 down to 0.)

1. Exercise 1.2.2.
2. Exercise 1.2.3.
3. Exercise 1.2.4.
4. Exercise 1.2.9.
5. Exercise 1.2.10.
6. Events $A$ and $B$ satisfy the following probability statements: $P(A) = \frac{2}{3}$, $P(B) = \frac{1}{4}$, $P(A \cup B) = \frac{3}{4}$. Find $P(A \cap B^c)$ and $P(A^c \cap B)$.
7. Events $A$ and $B$ satisfy the following probability statements: $P(A) = 0.2$ and $P(B) = 0.15$. Find the smallest and largest possible values for $P(A \cup B)$.
8. Events $A$ and $B$ satisfy the following probability statements: $P(A) = 0.8$ and $P(B) = 0.75$. Find the smallest and largest possible values for $P(A \cap B)$.
9. Exercise 1.3.6.

Work to do, but not turn in.

- Acquire the textbook.
- Read Chapter 1.