## Stat 134, Fall 2008

## HOMEWORK 1 (due Wed 9/3)

**1.** 1.1.8. The sum in part (e) now has n terms, not 6. Exercise 1.1.7 will obviously help, as will examples from lecture and the text.

**2.** 1.3.6. In each part also draw a histogram of the distribution, like the one on Page 25.

**3.** Consider an outcome space which is a set of Berkeley students. Let A be the event that the student is male, and B the event that the student is undeclared (that is, has not declared a major). In this context, do 1.3.8. In each part provide a verbal description of the event as well as the probability. For example, the event in part (b) is that the student is female, and the probability is – well, you know what the probability is.

4. 1.3.15. Notice that this is an extension of 1.3.14 (which follows easily from the inclusion-exclusion formula - and no, you don't have to do it). You'll find Boole's inequality in lecture and in 1.3.13.

5. 1.4.6. One way is to draw a tree diagram that shows just the right level of detail for the first card.

**6.** 1.Rev.10. In the second part two of the terms are straightforward (why?); and if you can find three of the terms then the fourth is easy (why?); so there's really only one term that requires some care.

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