

**Math 55: Discrete Mathematics, Fall 2008**  
**Reading and Homework Assignment 9**

Reading:

Lecture 25: 6.3

Lectures 26-27: 6.4

Homework (due Monday, 10/27):

Odd-numbered self-checking exercises:

6.3: 3, 7

6.4: 3, 5, 11, 25, 31, 41

Problems to hand in:

6.3: 4, 10, 12, 14

6.4: 4, 8, 16, 30, 42

Ch. 6 Suppl. Ex. 16, 18, 24

(A) Use Markov's Inequality (6.4 Exercise 31) to find an upper bound on the probability that at least  $k$  people get their own hats back, in the hat-check problem (6.4 Example 6). Your answer should not depend on the number of people who checked hats.