ISyE 2027C Probability with Applications

Homework 2   **January 13, 2015**   *be ready for a quiz January 20*

Dekking *et al.*: Chapter 3 Section 6 Problems 3.1,3.2,3.3,3.5,3.8,3.11,3.16.

Clarifications and Hints: For problem 3.1, remember that if two events E and F are disjoint (they cannot both occur) then $P(E \bigcup F) = P(E) + P(F()$. The answer to 3.3(b) is 1/4. If the event S_1 had never been defined, you'd see immediately that S_2 has probability 1/4. The point of 3.3(b) is that you get 1/4 even when you compute it using the law of total probability. For problem 3.16, you should assume that when the test is given a second time, its chance of being accurate is independent of the accuracy of the test the first time.