HOMEWORK 3   (4653, FALL 2008)

Read: *Rabinowitz*, chapters 4.1, 5, 6.1, and *Tijms*, chapters 3.2, 4.1, 4.2.1, 9.1-3, 9.6 (N. 1, 2, 4, 5, 7)

Solve: Problems 3, 11, 13, 15, 16 in *Rabinowitz*, p. 107–109, 2, 5, 11, 12, 15, 20, 21 in *Rabinowitz*, p. 127–130, problems 3.10, 3.16, 3.18, 3.20 (no simulation), in *Tijms*, p. 95–98, problems 4.2, 4.4 in *Tijms*, p. 134–136, problem 9.2, 9.28, 9.30 in *Tijms*, and the following problem:

A (10 points) A company makes 100 different coupons placed at random in cereal boxes. To win a prize, a customer must collect 50 different coupons. Compute the expected number of boxes one needs to buy to do that. Compare with the case when there were only 50 coupons available.

P.S. All book problems are worth 10 points.

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This Homework is due Thursday October 2 at 4:40 pm. (right before class). Please read the collaboration policy on the course web page. Make sure you write your name in the beginning and your collaborators' names at the end. If you are unable to bring it to class, please arrange it be brought by someone else (same deadline applies).

You MUST box all the answers. Remember that the answers are not enough, you also need to provide all intermediate calculations exhibiting your logic. However, no written explanations are necessary unless the problem asks for them.