Homework problems will be assigned bi-weekly and selected even problems will be graded. Please hand the problems to me before the class begins. You may discuss these problems with other students, but you must independently write up and submit your own solutions. Copying any part of a solution from a book, solutions guide, or website is cheating! Students are expected to abide by the Georgia Tech Academic Honor Code. Late homeworks will not be excepted, but you may drop your two lowest homework grades. Emailed homeworks will only be accepted with prior agreement of the Instructor - else they will not be accepted.

In order to grade as many problems as possible, your submitted problem sets should be printed very neatly and stapled. Please do not cross out. Write on only one side of each page and do not use paper that has been torn out of spiral bound notebooks. You may typeset your solutions, but I do not consider this a good use of your time. Edit your solutions carefully. Please do not show arithmetic and most algebra calculations. Your solutions should look like the solutions of examples in the text. Finally, if a problem can be solved without the use of a computer, then no partial credit will be awarded for a computer solution.

Please read all the relevant sections in the textbook.

1. 1.10: 6, 7, 9, 11, 14, 15, 16, 17, 19, 20, 21 (optional)

**Mathematica code for Problem 21**

```mathematica
coin[] := If[Random[] ¡ 1/3, 1, 0]; % p (H) = 1/3
Num = 1000;
outcomes = Table[coin[], i, 1, Num];
Plot[ Sum[outcomes[[k]], k, 1, n]/n, n, 1, Num]
```

**Matlab code for Problem 21**

```matlab
Num = 1000;
outcomes = (rand(1,Num) ¡ 1/3)
y = cumsum(outcomes)./([1:Num]
plot(y)
```