1) Ross Chapter 1 #10, #18, Chapter 2 #15, #17, (Theoretical Excercises), #6b,d,h.

2) Matlab excercises: In this excercise random numbers are drawn using the ”rand” command. Several matlab commands are used. To get help for any matlab command type ”help command”.

a) Generate a vector of 1000 random numbers using the ”rand” command. If $x$ is the random vector, try the command ”hist(x,10)” to observe where the random numbers lie. Also try the following commands; ”max(x)”,”min(x)”,”mean(x)”, and ”std(x)”. What do these commands do? Repeat the experiment by drawing another 1000 random numbers and again using the above commands. Discuss your observations.

b) Generate a random experiment where you roll a pair of fair six sided dice (Hint: you may want to use the ”ceil” command). Conduct this experiment independently 1000 times and observe the sum of the pips of the two dice. Make plots of the relative frequency of the sum of the pips, $S = \{2, 3, 4, \ldots, 11, 12\}$ (Use ”stem” and ”hist” commands to plot the relative frequencies.). Develop a probability model for this experiment.