1) Explore the shift functions available in two of the languages: Matlab, C and/or Fortran 2003. Write small programs that demonstrate their actions on signed and unsigned integers.

2) Run the following pieces of Matlab code, and explain their performance

   \[ x = 1; \text{while } 1+x > 1, \ x = x/2, \ \text{pause}(.02), \ \text{end} \]
   
   \[ x = 1; \text{while } x+x > x, \ x = 2*x, \ \text{pause}(.02), \ \text{end} \]
   
   \[ x = 1; \text{while } x+x > x, \ x = x/2, \ \text{pause}(.02), \ \text{end} \]

3) Problems 2 and 3 of Chapter 1 of Prof. Stewart’s book.

4) Problems 9 and 10 of Chapter 2 of Prof. Stewart’s book.