University of Nevada, Las Vegas Computer Science 456/656 Fall 2019
Assignment 1: Due Wednesday August 14, 2019

Name:__________________________________________________________

You are permitted to work in groups, get help from others, read books, and use the internet. But the handwriting on this document must be your own. Print out the document, staple, and fill in the answers. You may attach extra sheets. Turn in the pages to the graduate assistant at the beginning of class, August 14.

1. Proof by contradiction will be used this semester. A number is called rational if it is the quotient of two integers; otherwise it is called irrational. Prove that $\sqrt{3}$ is irrational. (Read the proof in the book that $\sqrt{2}$ is irrational.)

2. We will be using many of the equations given in Exercises 1–12 on pages 23–24. Review those equations, but do not hand anything in.

The sixth edition of Linz has eliminated all those exercises. I will post a copy of those for you to study.

3. Look at the figure on page 37, which represents an abstract automaton. Make sure you understand it. This figure is on page 27 of the sixth edition.

4. We will make use of the equations given in Exercises 1–4, and 8–9 on pages 37–38. Make sure you understand them, but do not turn anything in.


There are exercises 15–16 on page 29 of the sixth edition.