CSCI 400 – Programming Language Concepts – Spring 2019 HW 02 (15 points)

This assignment is to be turned in through Blackboard.

- 1. The BNF grammar below is similar to the grammar we discussed in class, only the numbers in this grammar are not limited to single digits. Using the this grammar, give a derivation for each of the following sentences.
 - (a) (5 points) 7
 - (b) (5 points) 14
 - (c) (5 points) 32, 6, 7

BNF Grammar

< digit >

< digit >

```
< number >
  < list >
  < list >
                \rightarrow < list > , < number >
                    < digit >
< number >
< number >
               \rightarrow < number >< digit >
 < digit >
                \rightarrow 0
 < digit >
                    1
 < digit >
                    2
 < digit >
                    3
 < digit >
                    4
 < digit >
                    5
 < digit >
                    6
 < digit >
                \rightarrow 7
```

 \rightarrow 8