CSCI 321 Computer Science III Fall 2018

Lecture 3 Activity 2

1. (50 points) Draw the binary tree representation of the following arithmetic expression: “(((5+2) ∗ (2−1))/((2+9)+((7−2)−1)) ∗8)”. Hint: Review the print arithmetic expression example on Chapter Slide 26.
2. (50 points) Give an O(n)-time algorithm for computing the depths of all nodes of a tree T, where n is the number of nodes of T. Write down the pseudocode. Hint: when you visit a node, you can perform some operation, for example, store some information in the node.