# COSC 251 – Lab #7
Can't see the forest.

Purpose: LISP is a great tool for trees. Promise.

Task: For this lab, you'll accomplish two tasks in regards to trees in LISP. LISP has a bunch of tree manipulating functions, but it does require things to be in a specific format.

1.) Given the following list and the following picture, figure out how trees are represented in LISP. Neither the professors or the TAs will confirm your answers, nor will we answer questions in regards to this task. You're on your own! (We will still answer questions about LISP errors, etc.) Note: this is to help with the second part of this lab, we don't need to see the answers in comments, etc.

List: (1 (2 4 (5 (8 11)) 6) (3 (7 9 10)))
Tree:
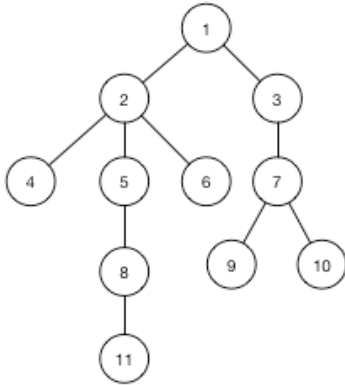
2.) Create a function that takes in a list in the format from #1 and print (neatly) the tree. For instance, given the list above, I should see output in the form:

1
2 3
4 5 6 7
8 9 10
11

Note that this does not preserve the edges between the numbered vertices, so no adjacency can be easily seen in your prints. As a bonus (+2 points), print (neatly) the tree with the edges.

Deliverable: the .lisp code that you create.

Deductions:
-2 Missing comments
-3 Not outputting the correct numbers for the vertices
-2 Not calculating the correct levels for each vertex

Due: By 11:59pm Tuesday. No exceptions. To be turned in via Blackboard. You are allowed to work in pairs for this lab.