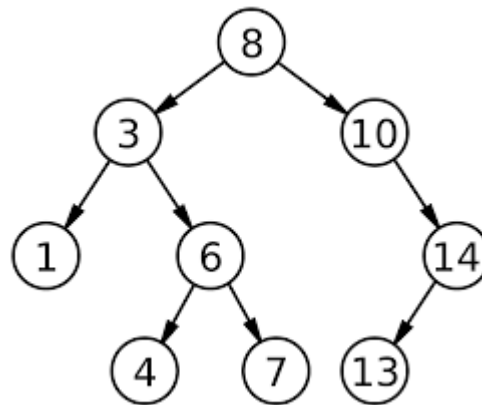# CS211 Lab 5

BINARY TREES

Write a Java program that takes in a list of numbers, inserts them into a binary tree and then outputs how many levels the resulting binary tree has.

The interaction should look something like this:

```
Enter the numbers to insert: 8,3,1,6,4,7,10,14,13

The resulting binary tree has 4 levels
```

In a binary search tree (BST), the root is considered to be at level 0. The levels in a binary search tree are typically defined such that the root is at level 0, and each level below the root increases by 1. For example, the root's children are at level 1, their children are at level 2, and so on.

So, when discussing the levels in a binary search tree, the root is indeed considered to be at the first level, which is level 0.

PEN AND PAPER EXERCISE

Show on paper the binary tree that results when the following numbers are inserted:

19,81,52,84,40,89,71,36,29,88,82,77,95,51,32,21,47,35,20

How many levels does it have? See if your program agrees.