Binomial Distribution

Description

Build an object-oriented simulation of the probability demonstration given in class. Use linked lists. Define two classes: a tree class and a node class. Use separate header and implementation files. You may not use an array (anywhere) or anything like unto it. This prohibition includes containers from the standard template library. Use recursion to build the tree, pass the balls through the structure, and get the results for output. In main, do the following:

1. instantiate the tree class
2. send the tree object a message to drop 256 virtual balls; the tree object drops these one at a time
3. output the results using operator overloading of the stream insertion operator (*do not output from any class; stringstream may be used*)

You may only use 4 function to complete this program. The recommended function are:

1) The Tree class constructor
2) A Tree::drop member function
3) A Tree::getResults member function
4) An overloaded operator <<

Please note there is no input from the user and the output will be different each time the program is executed.

Output

This is example output from 3 separate executions of the program.

```
1-8-22-54-77-53-31-9-1

0-8-37-45-71-58-21-14-2

0-11-24-61-65-52-33-9-1
```