

# Overview

Everything in my project *should* work.

I'm pretty sure I learned more in this assignment than I did in 274.

**Expression()**

Does as it's supposed to. Creates the expression `()`.

**Expression(string str)**

Does as it's supposed to. Creates a binary tree using `str`.

**Expression(const Expression &other)**

Works. Deep copies binary tree from `other`.

**~Expression()**

Works. Destructor is called on every node in binary tree.

**Expression &operator = (const Expression &other)**

Assignment operator works as it's supposed to.

**double evaluate(double x) const**

Correctly evaluates the value of tree given value for variable `x`.

**static Expression randomExpression(int height)**

Creates a balanced random tree. The instructions said to make a "full expression tree" so I took that as meaning balanced.

**string toString() const**

Successfully converts tree to string form. It can be used in the constructor of another expression.

**void mutate()**

Randomly mutates a given node in the tree. However, the chance is not evenly distributed for each node.

**int getHeight() const**

Does as it's supposed to. Returns the height of the tree.