

0.0.1 Constructor and the Class as a whole

The constructor for the Function class will be quite simple. We take an expression as an input and:

1. Remove Whitespace from the expression
2. Standardize the expression (using the RegEx rules)
3. Create the Binary Tree
4. Create the Post-Fix Stack from the Binary Tree

Algorithm 1: Function Class Constructor

<pre>1 function <i>Function</i>(String expression): 2 expression = expression.strip() 3 expression = standardize(expression) 4 this.expression = expression this.binaryTree = createTree(this.expression) 5 this.postFixStack = this.binaryTree.traverse() 6 end</pre>

The class as a whole will look something like the diagram below. The evaluateStack method is the same as the Stack-Based Evaluate Algorithm (Algorithm ??).

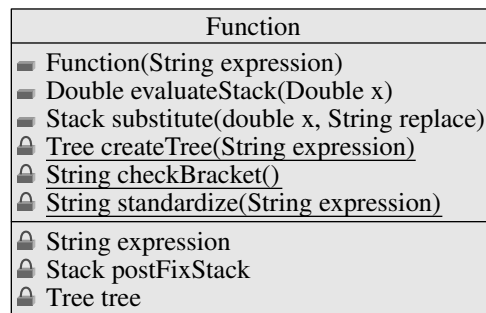


Figure 1: Function Class