/\* Test program for CS310, SP 15, program #3

Each expression is worth 10 points

Alan Riggins

\*/

import data\_structures.\*;

public class ExpressionEvaluatorGrader {

ExpressionEvaluator calculator;

public ExpressionEvaluatorGrader() {

calculator = new ExpressionEvaluator();

runTests();

}

private void runTests() {

String expression, answer;

expression = "( ( 2 + 3";

answer = calculator.processInput(expression);

if(!answer.trim().toUpperCase().equals("ERROR"))

System.out.println("\*\*\*\* ERROR, expecting ERROR, but the expression " + expression +

" returns " + answer);

expression = "2 + 3 )";

answer = calculator.processInput(expression);

if(!answer.trim().toUpperCase().equals("ERROR"))

System.out.println("\*\*\*\* ERROR, expecting ERROR, but the expression " + expression +

" returns " + answer);

expression = "2 ( 2 + 3 )";

answer = calculator.processInput(expression);

if(!answer.trim().toUpperCase().equals("ERROR"))

System.out.println("\*\*\*\* ERROR, expecting ERROR, but the expression " + expression +

" returns " + answer);

expression = "2 \* ( 2 + 3 ) )";

answer = calculator.processInput(expression);

if(!answer.trim().toUpperCase().equals("ERROR"))

System.out.println("\*\*\*\* ERROR, expecting ERROR, but the expression " + expression +

" returns " + answer);

expression = "2 \* ( 4 + 2 ) - 11";

answer = calculator.processInput(expression);

if(!answer.trim().toUpperCase().equals("1.0"))

System.out.println("\*\*\*\* ERROR, expecting 1.0, but the expression " + expression +

" returns " + answer);

expression = "2 ^ 3 \* 2";

answer = calculator.processInput(expression);

if(!answer.trim().toUpperCase().equals("16.0"))

System.out.println("\*\*\*\* ERROR, expecting 16.0, but the expression " + expression +

" returns " + answer);

expression = "2 + 3 \* 2";

answer = calculator.processInput(expression);

if(!answer.trim().toUpperCase().equals("8.0"))

System.out.println("\*\*\*\* ERROR, expecting 8.0, but the expression " + expression +

" returns " + answer);

expression = "2 ^ 3 \* 4 + 5";

answer = calculator.processInput(expression);

if(!answer.trim().toUpperCase().equals("37.0"))

System.out.println("\*\*\*\* ERROR, expecting 37.0, but the expression " + expression +

" returns " + answer);

expression = "( 2 \* ( 12 + 13 - 4 \* 5 + 2 ) / 7 ) ^ 2";

answer = calculator.processInput(expression);

if(!answer.trim().toUpperCase().equals("4.0"))

System.out.println("\*\*\*\* ERROR, expecting 4.0, but the expression " + expression +

" returns " + answer);

expression = "4.2 - 2.2";

answer = calculator.processInput(expression);

if(!answer.trim().toUpperCase().equals("2.0"))

System.out.println("\*\*\*\* ERROR, expecting 2.0, but the expression " + expression +

" returns " + answer);

expression = "2 ^ ) 3 \* 2 (";

answer = calculator.processInput(expression);

if(!answer.trim().toUpperCase().equals("ERROR"))

System.out.println("\*\*\*\* ERROR, expecting ERROR, but the expression " + expression +

" returns " + answer);

System.out.println("Done");

}

public static void main(String [] args) {

new ExpressionEvaluatorGrader();

}

}