CS 46B
Introduction to Data Structures
Summer Semester 2015
Department of Computer Science
San José State University
Instructor: Ron Mak

Homework #6
Mutual Recursion Calculator

| Assigned: | Tuesday, June 30 |
| Final due: | Monday, July 6 at 11:59 PM (there is no draft) |
| Codecheck URL: | http://codecheck.it/codecheck/files/15063004458msne7gm8q5xfc266nmdvknb5 |
| Canvas: | Homework 6 final |
| Points: | 18 points max |

This assignment will check your understanding of mutual recursion and its application in the interactive command-line calculator.

Modify the textbook’s Evaluator.java to handle:

• The % modulo operator, which should bind as tightly (have the same precedence level) as * and /
  
  Example: 19%4 = 3

• The ^ power operator, which should bind the most tightly of all the operators (have the highest precedence level).
  
  Example: 2^5 = 32
  3*2^5+4 = 100

  **Tip:** Look up Math.pow()

Your program should have a main class ExpressionCalculator that reads multiple arithmetic expressions from the command line. The expressions do not contain blanks but are separated by blanks. Print and evaluate each expression on a separate line.

Example: java ExpressionCalculator 19%4 3*2^5+4
should write to System.out:

19%4 = 3
3*2^5+4 = 100
Codecheck URL:
http://codecheck.it/codecheck/files/15063004458msne7gm8q5xfc266nmdvknb5
(Ignore the system error about the unknown pseudocomment ARGs.)

Canvas: Homework 5 Final