SimpleCalc Extension
CSCI-400 Spring 2013

Exercise #1

Modify SimpleCalc so that it accepts a command line switch that turns off the output of token and reduction diagnostic information that was the focus of the prior assignment. The command line protocol should now be

```
C:>SimpleCalc [filename] [-v]
```

Where **filename** is the name, including extension, of the input text file and **-v** is a command-line switch that, if included turns on the diagnostic information.

Exercise #2

Modify SimpleCalc so that it recognizes (and ignores) both block and end-of-line comments.

Exercise #3

Modify SimpleCalc so that it supports a print command useing the question mark. The format should be:

```
? expression
```

Examples

```
? R4
? 3.0+2^5
```

The format for the output should be

```
ANS> value
```

The value displayed should be presented either as an integer or as a floating point value, as appropriate. You might consider using the **"%g"** format specifier for floating point values.

Exercise #4

Modify SimpleCalc so that, if it doesn't already, it imposes left associativity on addition, subtraction, multiplication, and division while imposing right associativity on exponentiation. Also, be sure that it recognizes all the various ways in which floating point values can be written, including exponential forms.

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Submission

Submit your zipped Flex and Bison input files to BlackBoard.

Name your zip file **`CS400_UserID_HW_nn`** where **`nn`** is the homework number.

Only submit a single set of input files, named SimpleCalc.l and SimpleCalc.y (capitalization doesn't matter); do NOT submit one for each exercise. The grading will be done by running a batch file to process your input files, compile the result, and run against a test input file. Be sure to test your program using very small and also very large floating point values.

GRADING RUBRIC – 40 pts

10 - Good Faith effort.

8 - Exercise #1
8 - Exercise #2
8 - Exercise #3
6 - Exercise #4

-10 - Improper submission.