

**CS 115**  
**Assignment 1**  
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Write a program to model a simple calculator. Each data line should consist of the next operation to be performed from the list below and the right operand. Assume the left operand is the accumulator value (initial value of 0). The valid operators are:

```
+  add
-  subtract
*  multiply
/  divide
^  power(raise left operand to power of right operand)
q  quit
```

Your calculator should display the accumulator value after each operation. A sample run follows.

```
+ 5.0
result so far is 5.0
^ 2
result so far is 25.0
/ 2.0
result so far is 12.5
q 0
final result is 12.5
```

## Hand In

1. Name the file containing your program “assign1.cpp”. Your C++ program **SHOULD** compile using CC (Sun compiler) under Hercules.
2. Submit your file through WebCT (webct.uregina.ca). You will then receive an acknowledgement email confirming your submission. You should save this email as a proof of submission. If you do not receive an email acknowledging your submission then you should promptly email the marker (mark115@cs.uregina.ca).

## Marking scheme: total = 100% + 10% (Bonus)

1. Readability (program style) : 20%
  - Program easy to read,
  - well commented,
  - good structured (layout, indentation, whitespace, ...) and designed (following the top-down approach)
2. Compiling and execution process : 10%
  - program compiles w/o errors and warnings
  - robustness : execution w/o run time errors
3. Correctness : 70%
  - code produces correct results (output).
  - **output meets the initial requirements (see above for the output format).**
4. Bonus : 10%
  - Features that increase functionality and/or presentation.