Computational physics

The assignment for this week is to make a calculator. The base assignment is to make a calculator that can handle the four basic arithmetic operations.

The requirements for your calculator are that it does the following:

1. Takes input from the user of two numbers

2. Takes input from the user of the mathematical operation.

3. Prints out the correct answer to the operation.

   Functions must be used for the above steps.

4. Asks the user if they wish to do another operation, and then executes the next operation if the user says yes. You may ask for a 0 or 1 as input, and use one number as a yes and one as a no.

Remember to make sure to comment your code and to write a pseudo-code before you start programming and to turn both in with your program. In your report on the program, cut and paste a few examples of screen output into the report, and give a few paragraph description of what the program does.

Challenge problem

For a simple challenge problem that will get you some bonus points, but not a lot, add more mathematical operations to the calculator.

For something that will get you more points, write a program that will allow you to type in one line line `5+4` and will give the right answer. You will have to do a bit more reading about character data types in order to make this work.

You could also consider adding features that allow the user to enter much more complicated sets of commands to the calculator – e.g. adding up ten numbers at a time or something like that.

As always, you may come up with your own idea for how to extend the program instead of doing the challenge problem I have set for you.