

ITSC202 - Project 11-01

Simple RPN Calculator

Part A, weight 0.7

Write a program **simplerpn.c** that will implement very simple reverse polish notation calculator. It will prompt the user for a data entry, the entry being either a number, or an operator +, -, *, / (add, subtract, multiply, divide) or the letter Q in either lowercase or uppercase, which will terminate the program. The calculator will use double as the type for the stack, and print 10 digits before and 6 digits after the decimal dot, as per example below:

```
$ simplerpn
.           : 123
123.000000 : 54
54.000000  : +
177.000000 : 2
2.000000   :
2.000000   : /
88.500000  : 10
10.000000  : -
78.500000  : q
$
```

Part B, weight 0.5

simplerpn.c: If the program is given the command line option -v (for “verbose”), it will print the complete content of the stack as a list in square brackets, following the example below:

```
$ simplerpn -v
[]: 123
[ 123 ]: 54
[ 123 54 ]: +
[ 177 ]: 2
[ 177 2 ]:
[ 177 2 ]: /
[ 88.5 ]: 10
[ 88.5 10 ]: -
[ 78.5 ] q
$
```