Scrum Blasters

Big Ol' Calculator

User's Manual

Version <1.0>

Revision History

Date	Version	Description	Author
<11/12/24>	<1.0>	Wrote out the user manual	Everyone

Table of Contents

Test Case

1. Purpose

The purpose of the BOC is to take a simple arithmetic input and parse through it to obtain an expression that then performs the given mathematical operations utilizing PEMDAS during calculation.

2. Introduction

The BOC can do any simple arithmetic involving addition, subtraction, multiplication, division, exponent, and modulo operations. Additionally, the input can read through parenthesis to perform traditional PEMDAS operation priority in its output. To run the program go to the GitHub repository, download the Look_Here folder, compile in a Linux shell using the command "**g++ cli.cpp**" and then run the command: "**./a.out**" in a Linux shell.

3. Getting started

You type out expressions with your keyboard, do not use spaces. This program has 6 operators; - subtraction, + addition, * multiplication, / division, ** exponent, and % for modulo. You can only enter whole numbers into the calculator.

4. Advanced features

One of the most advanced features of our calculator is the ability to solve equations with exponents. By using two multiplication signs (**), the program will understand that to be exponents and calculate the results accordingly. Another advanced feature of our program is its ability to precisely calculate equations with parentheses in them. In doing so, the BOC is able to rearrange an equations precedence however the user likes.

5. Troubleshooting

If you expression is not working try these things:

- Make sure there are no spaces in your expression
- Make sure you are using the correct syntax for expressions (e.g. exponents are represented with "**", not "^"). Refer to the "key" section on the application, or section 3: "Getting started" for a list of valid syntax
- Make sure you are focused on the application
- Make sure you are hitting "enter" after typing in your expression

6. Examples

Input: 1+1
Output: 2

Input: 3*(3-4)
Output: -3

Input: 8/(2**2)+3
Output: 5

Input: 8%3
Output: 2

7. Glossary of terms

BOC - Bg Ole' Calculator.
Addition - Adding two numbers.

Subtraction - Taking the difference between two numbers .
Multiplication - Adding a number together by the second number amount of times.
Division - Subtracting a number by a certain number of times.
Exponents - Taking an item and bringing it to the power of the second number. For example, 2**3 is 8.
Modulo - Dividing the first number by the second number and returning the remainder.

8. FAQ

"Is there implicit multiplication?"

Implicit multiplication currently has no functionality in the program.

"Why is there no integration or derivation?"

Calculus operations were not within project scope.

"Do I have to rerun the program every use?"

At the moment, yes. Everytime the user needs an expression they will have to rerun the command "**./a.out**"

"Are those warnings after the compile command bad?"

No. Just ignore those.