# **Scientific Calculator**

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COMP2424-A Data Structures & Algorithms

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GitHub Repository Link: <a href="https://github.com/MikhaWy/Scientific\_Calculator">https://github.com/MikhaWy/Scientific\_Calculator</a>

### **Project Goals**

Please create a scientific calculator using C++, with the rules below:

- 1. The calculator should have + / : (10 points)
- 2. Basic trigonometry function: sin cos tan (10 points)
- 3. More than basic function: square root, exp, log, ln (15 points)
- 4. The calculator can input up to 10 or more variables and parameters. It is not limited to 2 + 2,  $3 \times 3$ , etc. (15 points)
- 5. Inside the code, you apply the class function (separate class, inline class, constructor, etc.) (20 points)
- 6. Inside the code, you apply the linked list or queue function (20 points)
- 7. It can delete and show the history of the calculator (10 points)

The teamwork section is based on GitHub, which the score will be:

- 1. Using GitHub, you understand how to use the fork option, pull request option.
- 2. Teamwork on solving the problem. In your report, you must state the person in charge. Please make sure each member has an equivalent contribution.

#### **Clone Line**

> git clone <a href="https://github.com/MikhaWy/Scientific Calculator.git">https://github.com/MikhaWy/Scientific Calculator.git</a>

### **Compile Line**

- > cd src> g++ -o main main.cpp calculator.cpp linkedlist.cpp program.cpp
- > .\main

### **Sample Output**

Figure 1 Sample Output 1

## **Sample Input**

#### 1. Calculation Command

Figure 2 Sample Input Calculation 1

Figure 3 Sample Input Calculation 2

#### 2. Complex Expression

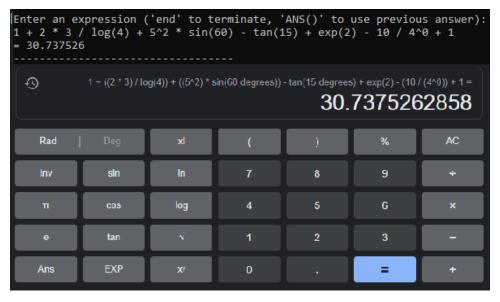


Figure 4 Sample Input Complex Expression 1

#### 3. History Command

Figure 5 Sample Input History Command