**Name:** Mingwei You (2837632), Rafael Carrillo (2746190)

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**User's Guide**

CalcWeb

Mingwei You (2837632), Rafael Carrillo (2746190)

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# 1.0 Introduction

In this document, we will introduce CalcWeb, a calculator on a website, to guide users how to use this website.

# 2.0 Interface Function

In this section, we will introduce how to use functions beside the calculator.

### 2.1 Color Theme

If you want to change the color theme of the website, on the top left corner, click on the "COLOR THEME" button, it will give you a list of color themes that you can set.

### 2.2 More

If you want to check other functions, on the top left corner next to "COLOR THEME", click on "MORE" button, it will give you a list of other functions:

- *History*: Check your calculation history, and you can use or delete individual/all history.
- *Tutorial*: Tell you how an operation in the calculator works.
- *About*: Literally meaning, about the authors and CalcWeb.

# 3.0 Calculator

In this section, we will introduce how to use functions in the calculator.

### 3.1 Calculation Display

In the calculator, by clicking on the display bar, it allows you to use your physical keyboard to type numbers or operators without having to click on the screen, and the left/right arrows key allows you to move to before or next numbers.

- Allowed keys:
  - Numbers (0~9)
  - Operators (+, -, *, /)
  - Trig:
    - s or S (sin)

- c or C (cos)
- t or T (tan)
  - Other keys:
    - l or L (log)
    - n or N (ln)
    - p or P ($\pi$)
    - e or E (e)
    - ^
    - !

### 3.2 Basic Arithmetic

- *Number (0~9)*: Enter numbers from 0~9 to the calculator.
- *Operation*: Enter operations such as +, -, *, and / in the calculator with numbers, and click = (or press Enter) will give you a result of the calculation.

### 3.3 Advanced Arithmetic

Click on "Advanced Function" button next to the calculator, it will give a list of the advanced arithmetic:

- Sine (sin): Used to operate opposite/hypotenuse of a right triangle
- Cos-sine (cos): Used to operate adjacent/hypotenuse of a right triangle
- Tangent (tan):  Used to operate opposite/adjacent of a right triangle.
- log (log): The logarithm gives the power you raise 10 to in order to get a number.
- ln (ln): The natural logarithm gives the power you raise e to in order to get a number
- Squareroot ($\sqrt{}$): Used for a number x whose value, when multiplied itself, equals x.
- Factorial (!): Factorial of a positive integer n is the product of all whole numbers from n down to 1
- Pi ($\pi$): An irrational constant used in formulas involving circles and trigonometry.
- exponent (^): Exponentiation raises one number (the base) to the power of another (the exponent)
- Euler's number (e): An irrational constant used in growth, decay, interest, and calculus.

# 4.0 Unit Conversion Calculator

In this section, we will introduce how to use the unit conversion calculator.

**4.1 Conversion**

A button of "UNIT CONVERSION" is located on the top left corner next to the "COLOR THEME" button, by click it, it will slide out a sidebar which allows you to use the conversion:

- Enter the desired value in the first box and select the unit from the list.
- Without having to click anything, the result will automatically be calculated and shown in the second box.
- On the bottom of the units, the box allows you to copy the converted results of what you entered and showed.

**4.2 Unit**

If you want to check all the units, below the conversion box, by clicking on four buttons (Mass, Length, Volume, Temperature) allows you to view what type of units are available.

- When clicking on one of the units, it will change the unit in the first box.
- If you choose the unmatched unit for input/output, the program will auto change the unit to make it match.