

# User manual

for calculator Rebus Calc

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## **Purpose of program**

The main purpose of this program (Rebus Calc) is to achieve the most effective and fastest calculations of basic mathematical problems. To achieve this, calculator is able to manipulate with operations like addition, subtraction, multiplication, division, factorial, sine, cosine, modulo, square root and powering.

### **Caution:**

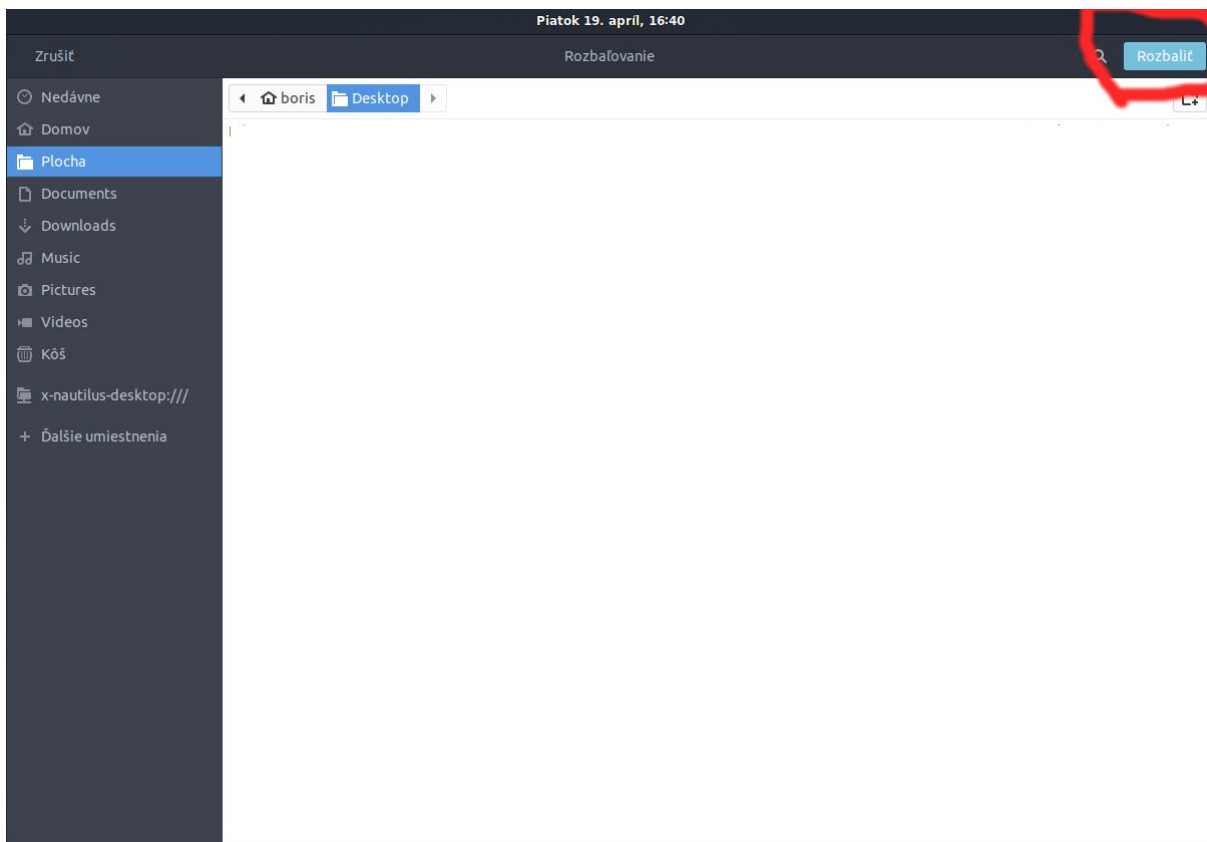
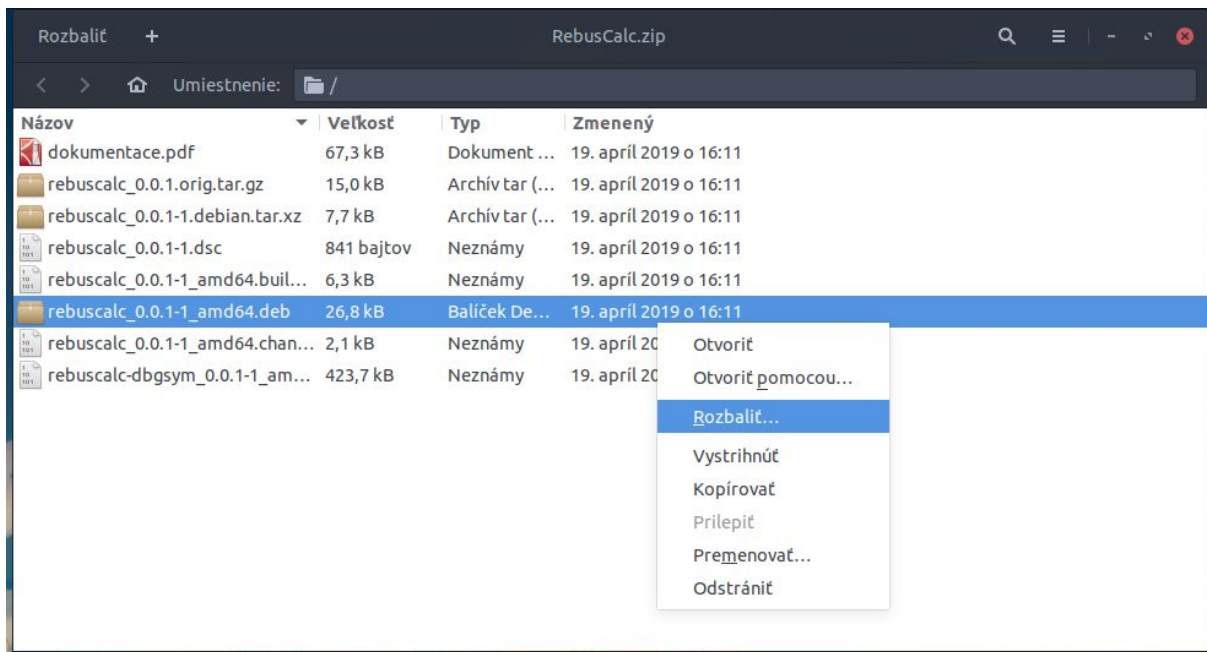
- Before using our software you are ought to scroll through the manual to avoid complications during installation or while using
- Using our source code without quoting is forbidden
- To correctly run the program, you should not edit source code

- In case of complications you are free to contact anyone from our team(contacts in README.md)

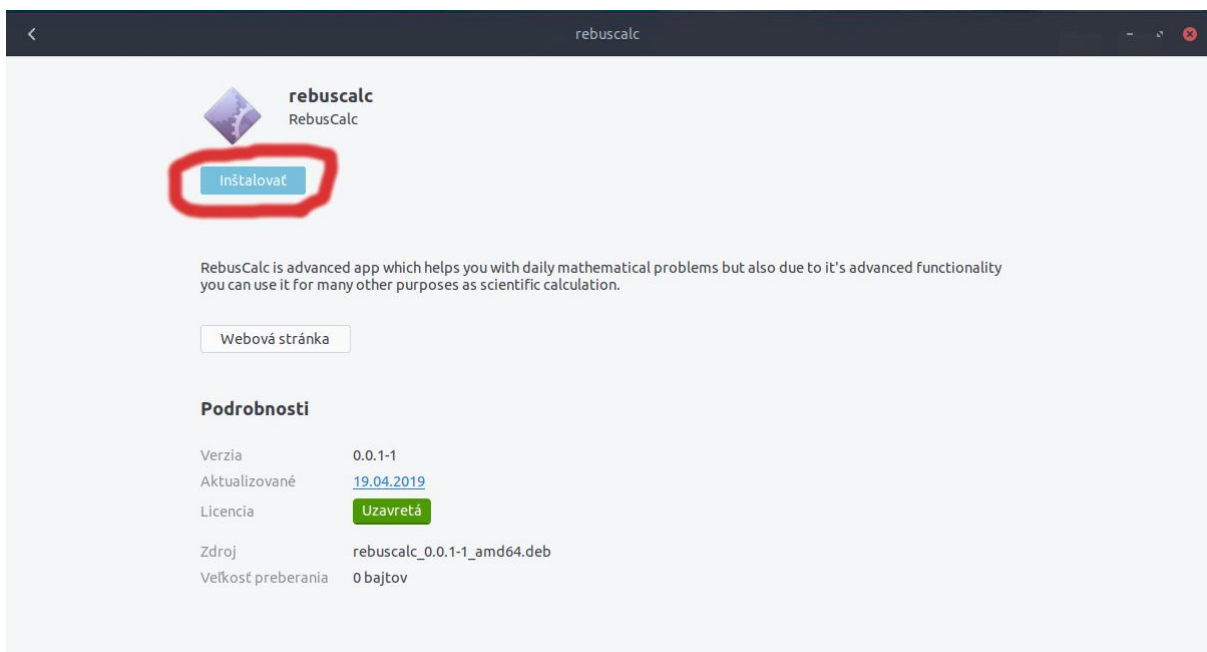
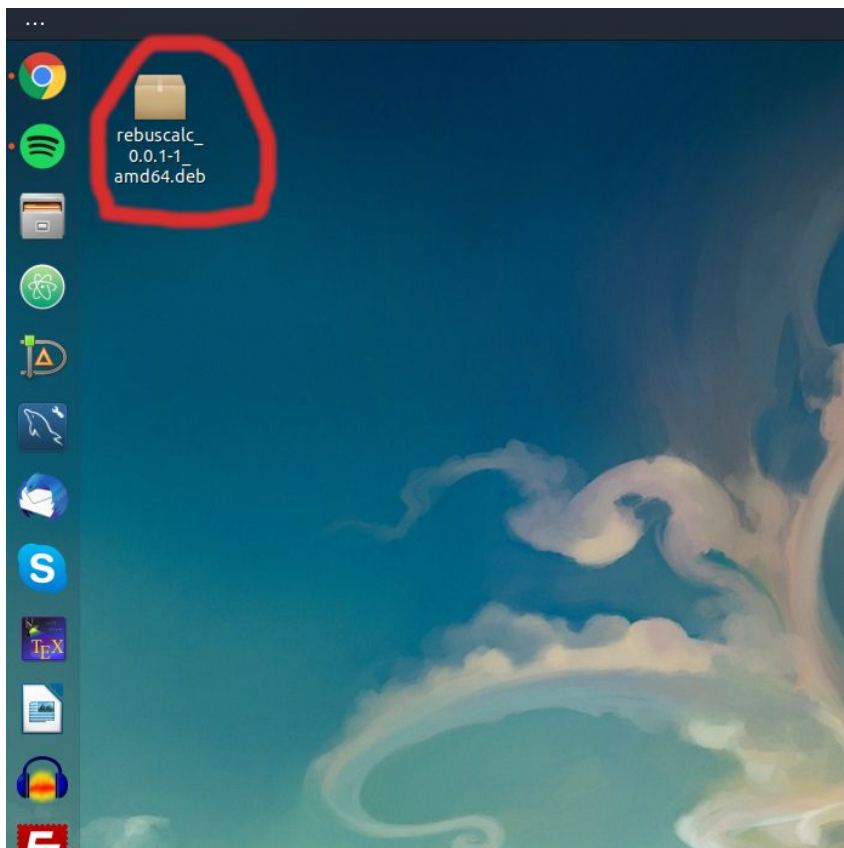
## **Installation/uninstallation & running the program**

### Installation with deb package

After downloading and opening RebusCalc.zip file extract rebuscalc\*.deb package (on our desktop for example).



Then you have to open .deb file and click install. If everything went fine program should be installed now.



## Install in terminal

To install application using terminal you have to extract .deb package again (Same steps as above). Then in terminal switch to folder where you extracted the package. And run this command:

```
~/Desktop$ sudo dpkg -i rebuscalc_0.0.1-1_amd64.deb
```

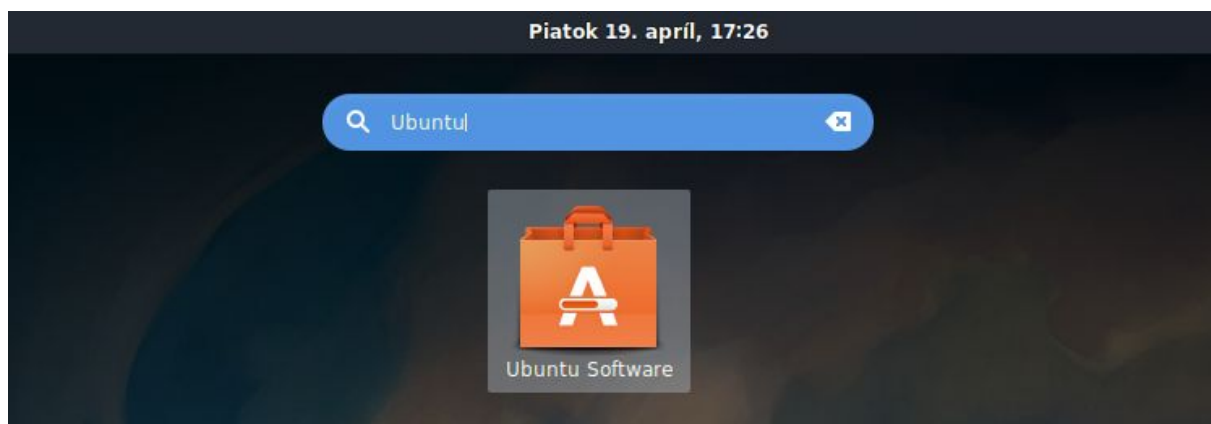
## Uninstall in terminal

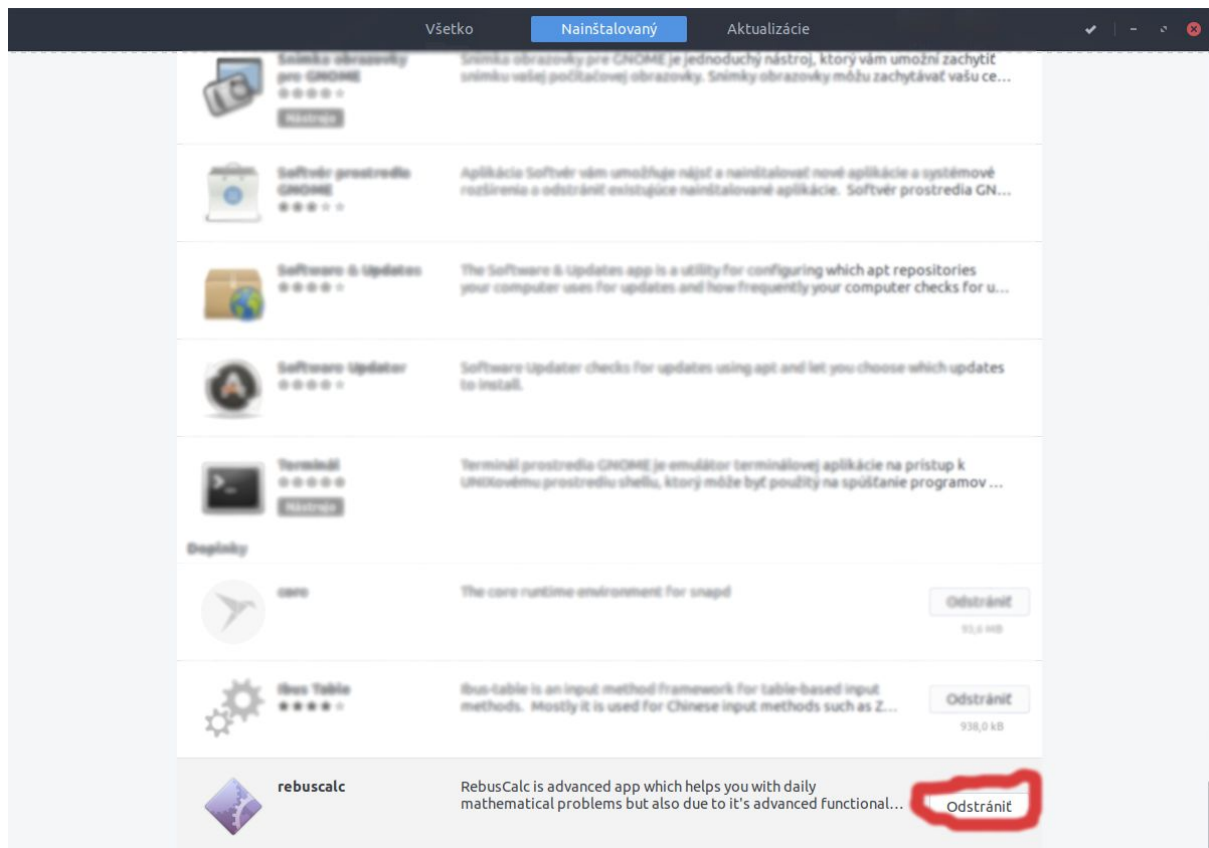
To uninstall application using terminal use this command:

```
~/Desktop$ sudo dpkg -r rebuscalc
```

## Uninstall in software centre

If program was installed by opening .deb package it should be found in the “installed” section in Ubuntu Software. To uninstall the program find it there and click remove.





## Running program from terminal

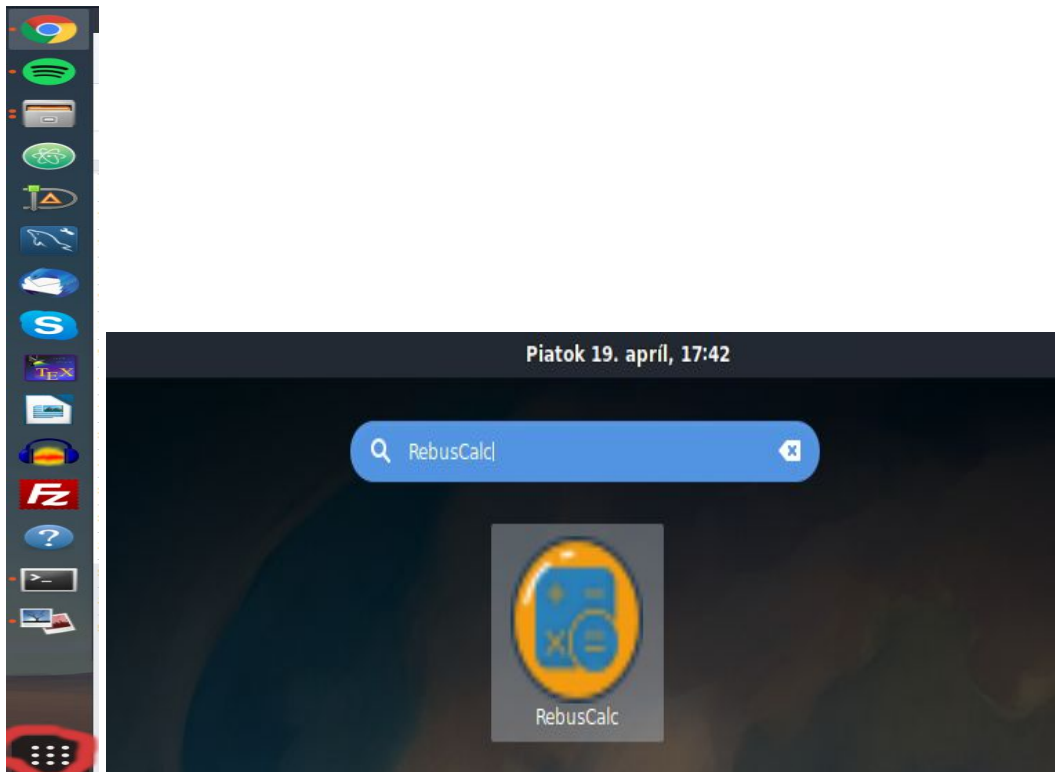
To run the program from terminal just type this command (from any directory):

```
~/Desktop$ RebusCalc
```

## Running program from applications menu

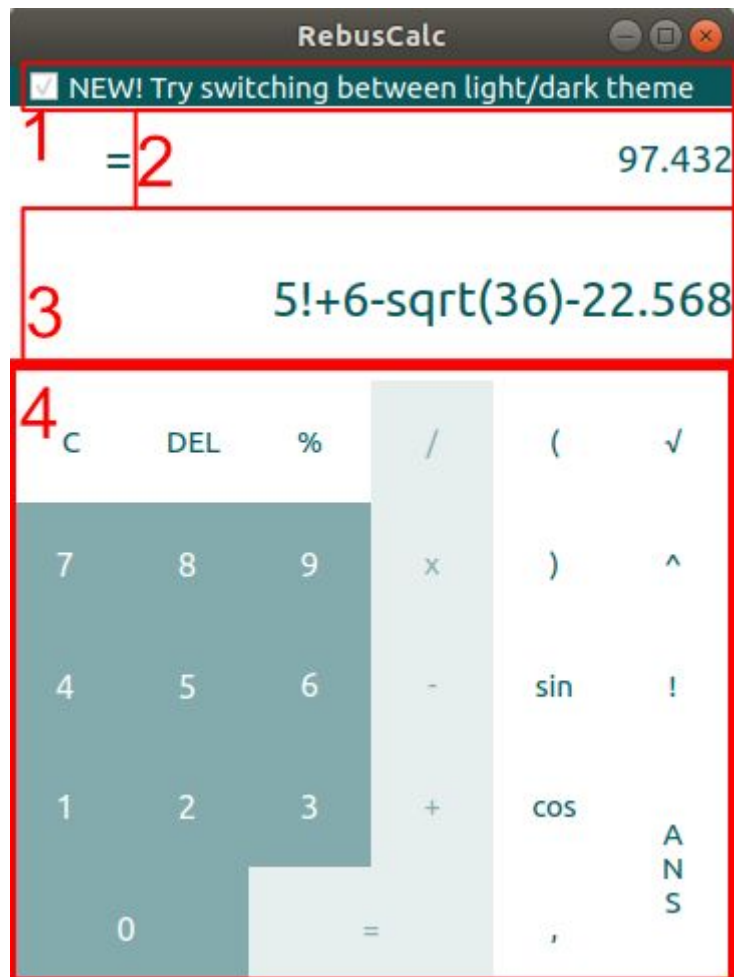
To run the program from applications menu type "RebusCalc" in Search Bar and open application.





## User interface

User interface of our application emphasizes on simplicity and utility while using our calculator. Pictures below describe individual parts of calculator's interface with short description for each part.



## Section 1: Panel of actualities

Purpose of first section is to show fresh actualities added to calculation. As you can see now, the newest feature is that you can switch between light and dark mode. When there will be a new actualisation with a new actuality, the old one is integrated within the body of application and in the Actuality panel the new one appears.

## Section 2: Result screen

Function of result screen is to show result of the expression. If you see **error** on this screen, it means that you typed invalid input or you tried to divide by 0. The value showed at this display is possible to send to the **Display of insertion** so you can work with the value. This can be done by pressing **Ans** button. It is necessary to have valid value in the Result screen.

### Section 3: Display of insertion

Display of insertions serves for showing actual state of expression which is about to be calculated. The result of final expression is shown on the **Result screen** by pressing = button.

It is possible to make edits before computing. You can delete 1 character/1 number by pressing **DEL** button or you can delete whole expression by pressing **C** button.

### Section 4: Button area

Within button area, you can find several buttons which are necessary for the functionality of our program. Let's describe these buttons in detail.

#### Buttons "0 - 9"

Numerical buttons which insert into **Display of insertion** corresponding digit. You can write several digits in a row to create multi-digit numbers such as 12492 or 294010.

#### Button "C"

After pressing this button, content of both - **Display of insertion** and **Result screen** is substituted by 0. Caution: this event is irretrievable!

#### Button "DEL"

This button deletes last character of expression in **Display of insertion**. If last thing there is: **sin(** , **cos(** or **sqrt(** this button removes it. This feature is made to prevent wrong inputs within mathematical library and also to quicken work with calculator.

#### Button "%"

Modulo of previous expression is calculated.

#### Buttons "/", "x", "-" and "+"

If you need to calculate basic arithmetic operations like division, multiplication, subtraction or addition you will use these buttons. All of them are binary - you need to interact with 2 values on both of its sides. Dividing by 0 causes error message.

#### Button "="

Button calls mathematical library which calculates the expression shown on **Display of insertion** and the result shows on the **Result screen**.

### Buttons “(“ and “)”

If you need to calculate more complex expressions you will definitely need to use brackets. The GUI has implemented braces matching algorithm, so if the right bracket does not show on screen check if the correspond with left braces. You will use “)” also to finish **sin(**, **cos(** and **sqrt(** functions.

### Buttons “sin(“ and “cos(“

Buttons are used to calculate sine and cosine values. It calculates it from whole expression within brackets.

### Button “,”

If you need to calculate decimal numbers you can simply insert decimal point and do so.

### Button “√”

You can calculate square root of a number/expression. You will need to enclose it with right bracket to avoid error message.

### Button “^”

To power a number/expression you use this button. To power complex expression, you will need to use braces for proper result.

### Button “!”

Button calculates factorial of an integer. Numbers which are not digits can not be calculated by factorial.

### Button “ANS”

Transports text from **Result screen** into **Display of insertion**.

## **Conclusion**

This user manual was created as a part of school project.

Greetings,  
Rebus Calc Team

P.S.: Math is fun!