

## User's Guide

You need python3 and pycharm to use the software, and install PyQt5.

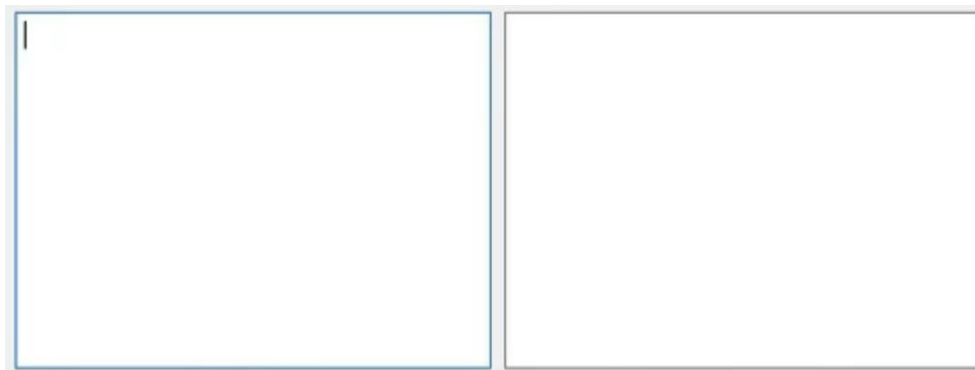
To install PyQt5, you can type these codes,

```
pip3 install PyQt5 -i https://pypi.douban.com/simple  
pip3 install PyQt5-tools -i https://pypi.douban.com/simple  
pip3 install PyQt5-stubs -i https://pypi.douban.com/simple
```

The left block is used to input the matrix. If you want to input a  $3 \times 3$  matrix, then just type like that,

```
a11 a12 a13  
a21 a22 a23  
a31 a32 a33
```

The right block is used to output results. After you calculate the matrix, the output results will be displayed in the right block.

The image shows two side-by-side rectangular boxes. The left box has a blue border and contains a single vertical line character '|' in the top-left corner. The right box has a gray border and is empty.

The part below is the number you need to input and the matrix operation you need to implement.

次方:	<input type="text"/>	转置	行列式
7	8	9	求逆
4	5	6	秩
1	2	3	Enter
0		-	Clear

For example, if you want to input a matrix

$$\begin{pmatrix} 1 & -2 \\ 0 & -1 \end{pmatrix}$$

Then just follow the steps below to enter,

**"1" "space" "-2" "Enter" "0" "space" "-1"**

And you will get the matrix that you want.

To find the 100th power of matrix A, A is given that

$$A = \begin{pmatrix} 1 & -2 & -2 \\ 1 & 0 & -3 \\ 1 & -1 & -2 \end{pmatrix}$$

You just need to type matrix A in the left block,

```
1 -2 -2
1 0 -3
1 -1 -2
```

and then type 100 in the blank of “次方”,

次方:

100

and you will get the answer in the right block.

```
50*x**2 - 49
-199  0  400
-100  1  200
-100  0  201
```