Exercise 3 :

```
>>> LinearProgramming()
Number of variables = 2
How many constraints ? 5
Coeff x1 = 0
Coeff x2 = 1
If >= press 0, else press 11
Result of the constraint = 5
Coeff x1 = 1
Coeff x2 = 1
If >= press 0, else press 11
Result of the constraint = 10
Coeff x1 = -1
Coeff x2 = 1
If >= press 0, else press 10
Result of the constraint = -2
Coeff x1 = 1
Coeff x2 = 0
If >= press 0, else press 10
Result of the constraint = 0
Coeff x1 = 0
Coeff x2 = 1
If >= press 0, else press 10
Result of the constraint = 0
Number of constraints = 5
Coeff x1 of the objective function3
Coeff x2 of the objective function1
Solution:
Maximum = 22.0
x = 6.0
y = 4.0
```

Exercise 4 :

```
>>> LinearProgramming()
Number of variables = 2
How many constraints ? 5
Coeff x1 = 3
Coeff x2 = 1
If >= press 0, else press 1
0
Result of the constraint = 6
Coeff x1 = 0
Coeff x2 = 1
If >= press 0, else press 1
0
Result of the constraint = 3
Coeff x1 = 1
Coeff x2 = 0
If >= press 0, else press 1
1
Result of the constraint = 4
Coeff x1 = 1
Coeff x2 = 0
If >= press 0, else press 1
0
Result of the constraint = 0
Coeff x1 = 0
Coeff x2 = 1
If >= press 0, else press 1
0
Result of the constraint = 0
Number of constraints = 5
Coeff x1 of the objective function = 1
Coeff x2 of the objective function = 1
If you whant to maximize press 1, if you whant to minimize press 2 :
2
Solution:
Minimum = 4.0
x = 1.0
y = 3.0

...
```

Exercise 5 :

```
>>> LinearProgramming()
Number of variables = 2
How many constraints ? 5
Coeff x1 = -1
Coeff x2 = 1
If >= press 0, else press 1
1
Result of the constraint = 2
Coeff x1 = 1
Coeff x2 = 2
If >= press 0, else press 1
1
Result of the constraint = 8
Coeff x1 = 1
Coeff x2 = 0
If >= press 0, else press 1
1
Result of the constraint = 6
Coeff x1 = 1
Coeff x2 = 0
If >= press 0, else press 1
0
Result of the constraint = 0
Coeff x1 = 0
Coeff x2 = 1
If >= press 0, else press 1
0
Result of the constraint = 0
Number of constraints = 5
Coeff x1 of the objective function = 1
Coeff x2 of the objective function = 2
Solution:
Maximum = 8.0
x = 1.3333333333333333
y = 3.3333333333333335
```

Exercise 6 :

```
>>> LinearProgramming()
Number of variables = 2
How many constraints ? 5
Coeff x1 = 1
Coeff x2 = 1
If >= press 0, else press 1
0
Result of the constraint = 4
Coeff x1 = -1
Coeff x2 = 1
If >= press 0, else press 1
1
Result of the constraint = 4
Coeff x1 = -1
Coeff x2 = 2
If >= press 0, else press 1
0
Result of the constraint = -4
Coeff x1 = 1
Coeff x2 = 0
If >= press 0, else press 1
0
Result of the constraint = 0
Coeff x1 = 0
Coeff x2 = 1
If >= press 0, else press 1
0
Result of the constraint = 0
Number of constraints = 5
Coeff x1 of the objective function = 3
Coeff x2 of the objective function = 1
The problem does not have an optimal solution.
```

Exercice 7 :

```
>>> LinearProgramming()
Number of variables = 2
How many constraints ? 4
Coeff x1 = -1
Coeff x2 = 1
If >= press 0, else press 1
0
Result of the constraint = 4
Coeff x1 = -1
Coeff x2 = 2
If >= press 0, else press 1
1
Result of the constraint = -4
Coeff x1 = 1
Coeff x2 = 0
If >= press 0, else press 1
0
Result of the constraint = 0
Coeff x1 = 0
Coeff x2 = 1
If >= press 0, else press 1
0
Result of the constraint = 0
Number of constraints = 4
Coeff x1 of the objective function = 3
Coeff x2 of the objective function = 1
The problem does not have an optimal solution.
```