

### Your task:

#### Lo Shu Magic Square:

The Lo Shu Magic Square is a grid with 3 rows and 3 columns. The Lo Shu Magic Square has the following properties:

The grid contains the numbers 1 through 9 exactly

The sum of each row, each column, and each diagonal all add up to the same number.

4	9	2
3	5	7
8	1	6

In a program you can simulate the magic square using a two-dimensional list. Your task is to check if user entry is a Lo Shu Magic Square.

#### Functions:

1. Main – makes a 3 by 3 2 dimensional list, fill all values by 0, call “getInput” first, and then call “checkLoShu” function. If checkLoShu returns true, you should output: “This is a Lo Shu magic square.”, otherwise, output: “This is not a Lo Shu magic square. ”
2. checkLoShu -- accepts a two-dimensional list as an argument and determines whether the list is a Lo Shu Magic Square. This function calls function 3-6, returns true only if functions 3-8 all return true.
3. checkLeftDiagnol -- accepts a two-dimensional list as an argument and determines if the left diagonal's sum is 15, return false otherwise. Left diagonal in the above picture is 4, 5 and 6
4. checkRightDiagnol -- accepts a two-dimensional list as an argument and determines if the right diagonal's sum is 15, return false otherwise. Right diagonal in the above picture is 2, 5, and 8
5. checkRows-- accepts a two-dimensional list as an argument and determines if the sum of each row is 15. Return false if any of the row's sum is not 15.
6. checkCols -- accepts a two-dimensional list as an argument and determines if the sum of each column is 15. Return false if any of the column's sum is not 15.
7. getInput -- accepts a two-dimensional list as an argument and asks user to enter all values. The input must be between 1-9. Use exception to catch ValueError. The list should be returned.
8. display—displays the user entered Lo Shu Square, 3 numbers per line, each number occupies 5