## Magic Square Rules

Let us start the rule by filling $3 x 3$ magic square.

Rule 1. Start by filling 1 in the middle of first row. (Imagine you are exiting the squares through the corners)

Rule 2. Exit through top right corner. (It helps if you sketch small arrow to trace the path of your exit - until you get used to it)

Rule 3. Now you are outside the boundary of the big square - that you divided into 9 little squares i.e., $3 x 3$, and when you are outside the boundary look at the tip of the arrow it is now next to a column. Fill next number, 2 in this case, end of that column.

Again you exit through the top right corner and you will find yourself outside the boundary. The tip of the arrow is now next to a row. Fill next number end of that row.

Rule 4. When you are filling a number and it is a multiple of the row size (in this case the row size is 3) then, fill next number in the square below). One can also say that during the process of filling when you exit the top right corner and try to fill next number in the square you enter is already occupied then fill under.

Rule 5. After filling the top right corner square the next number is always filled under that square. This rule is specific to this corner square. That is all!

Continue in the same way until you fill all the squares.

Good luck!

Note: The same rule works for all the magic squares no matter what the size of the magic square (remember the row size has to be odd number)

For $3 x 3$ you had the row sum as 15.
For $5 \times 5$ the row or column sum is 65.
For $7 \times 7$ the row sum is 175

What is the row sum for $9 x 9$ ?

Here is the summary of the magic square rules.

1. Go through right corner.
2. If outside boundary fill end of row or column.
3. If empty fill next number.
4. If in top right corner square fill under.
5. If full fill under

That is all!

