

## Rules of Addition Equation Sudoku

Like the standard sudoku, this sudoku has the basic rule: Every row, every column and every $3 \times 3$ box in the grids contains the digits 1 through 9 .

The puzzle can be solved by finding the values of the unknown digits (all indicated by asterisks) in the squares of the $9 \times 9$ grid. At the bottom and right side of the $9 \times 9$ grid are numbers, each of which is the sum of a column or row of unknown digits marked by asterisks.

## A Short Demonstration

In this puzzle, a set of 17 equations can be formed from the columns and rows of unknown digits and constants. For example, in the fourth and fifth columns beginning from the left of the $9 \times 9$ grid, the following equations can be formed:

$$
*+*+*=6 \text { and } *+*=9 .
$$

In the eighth and ninth rows beginning from the top of the $9 \times 9$ grid, the following equations can be formed:

$$
*+*+*=11 \text { and } *+*=13 .
$$

After solving all the equations, the puzzle is solved by the usual sudoku technique and strategy.

