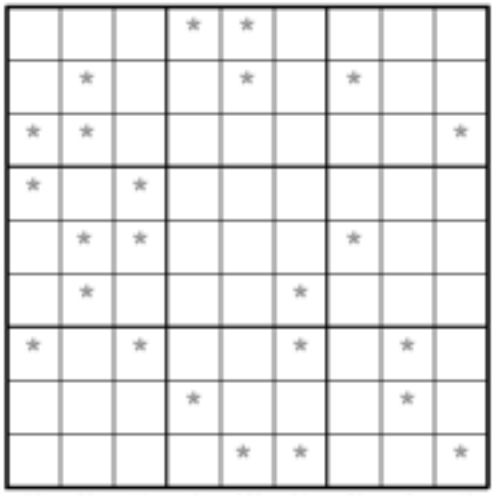
LCM sudoku

NA3_RT12



Like a standard sudoku, this sudoku variant has the basic rule that every row, every column and every 3×3 box in the grid contains the digits 1 to 9.

The first step to solving this puzzle is to find the values of the unknown digits (all indicated by asterisks) in the cells of the 9×9 grid. At the bottom and right side of the 9×9 grid are numbers, each of which is the least common multiple (LCM) of all the starred numbers in the row or column preceding it.

We define the least common multiple of a set of numbers as the smallest number which is divisible by all of them. For example, the least common multiple of 3, 4 and 8 is 24.

In total 18 least common multiples are given as clues for solving the puzzle—one for each row and each column of the grid.

After finding the values of all the unknown digits, the puzzle is solved as a traditional sudoku with the starred numbers as a starting point.

Relevance

NA3 What are highest common factors and why do they matter?

