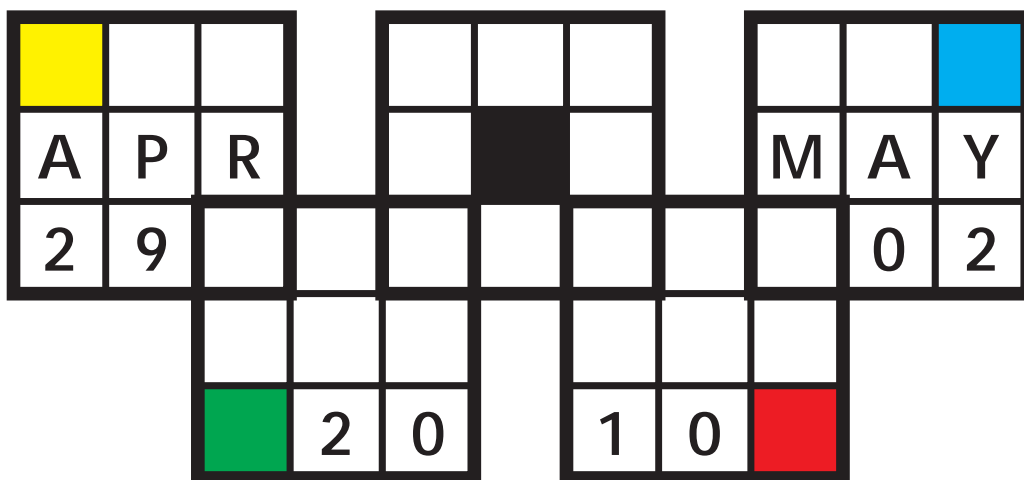


# 5<sup>th</sup> WORLD SUDOKU CHAMPIONSHIP PHILADELPHIA



## Puzzle Examples

from <http://www.worldpuzzle.org/wiki/>

Lead  
Sponsor

# The Philadelphia Inquirer





## Classic Sudoku

Place the digits 1 through 9 into the empty cells in the grid (a single digit per cell) so that each digit appears exactly once in each of the following regions: the nine rows, the nine columns, and the nine outlined 3×3 regions.

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
|   |   |   |   | 8 |   |   |   | 1 |
|   |   | 4 |   | 3 |   |   |   | 6 |
|   | 7 |   |   |   | 1 |   | 9 |   |
|   | 5 |   |   |   |   |   |   |   |
|   |   |   | 5 | 1 | 8 |   |   |   |
|   |   |   |   |   |   |   | 7 |   |
|   | 6 |   | 7 |   |   |   | 5 |   |
| 1 |   |   |   | 2 |   | 4 |   |   |
| 2 |   |   |   | 4 |   |   |   |   |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 3 | 2 | 9 | 6 | 8 | 7 | 5 | 4 | 1 |
| 5 | 1 | 4 | 9 | 3 | 2 | 7 | 8 | 6 |
| 8 | 7 | 6 | 4 | 5 | 1 | 2 | 9 | 3 |
| 6 | 5 | 2 | 3 | 7 | 9 | 8 | 1 | 4 |
| 7 | 4 | 3 | 5 | 1 | 8 | 6 | 2 | 9 |
| 9 | 8 | 1 | 2 | 6 | 4 | 3 | 7 | 5 |
| 4 | 6 | 8 | 7 | 9 | 3 | 1 | 5 | 2 |
| 1 | 9 | 5 | 8 | 2 | 6 | 4 | 3 | 7 |
| 2 | 3 | 7 | 1 | 4 | 5 | 9 | 6 | 8 |



## Killer Sudoku

Follow Sudoku Rules. In addition, the digits in each region delineated by dotted lines must sum to the value given in that region. Digits can repeat within a caged region, provided they don't violate other sudoku rules.

|    |    |   |    |    |    |    |    |    |    |
|----|----|---|----|----|----|----|----|----|----|
| 10 |    |   | 18 | 13 |    |    | 14 | 18 |    |
| 4  |    |   |    | 14 |    |    |    | 11 |    |
| 17 |    |   |    | 16 |    |    | 12 |    |    |
|    | 24 | 9 |    |    |    |    | 8  |    |    |
|    |    |   | 7  |    |    | 15 | 12 |    |    |
| 3  |    |   | 15 |    |    | 13 |    |    | 21 |
| 21 | 11 |   | 10 |    | 15 | 13 |    |    |    |
|    |    |   | 9  |    |    |    | 17 |    |    |
|    |    |   |    | 18 |    |    | 3  |    |    |

|    |   |   |   |    |    |   |   |   |    |    |   |   |
|----|---|---|---|----|----|---|---|---|----|----|---|---|
| 10 | 6 | 4 | 9 | 18 | 13 | 8 | 3 | 2 | 14 | 18 | 1 | 7 |
| 4  | 1 | 3 | 2 |    | 14 | 5 | 7 | 6 |    | 11 | 8 | 4 |
| 17 | 8 | 5 | 7 |    | 16 | 4 | 1 |   | 12 | 2  | 3 | 6 |
|    | 4 | 8 | 3 | 9  |    | 7 | 5 | 9 | 1  | 8  | 6 | 2 |
|    | 9 | 7 | 6 | 7  |    | 2 | 1 | 4 | 15 | 12 | 5 | 3 |
| 3  | 2 | 1 | 5 | 15 |    | 6 | 8 | 3 |    | 7  | 4 | 9 |
| 21 | 3 | 9 | 4 | 10 |    | 1 | 2 | 8 | 13 | 6  | 7 | 5 |
|    | 5 | 2 | 1 | 9  |    | 3 | 6 | 7 |    | 17 | 9 | 8 |
|    | 7 | 6 | 8 | 18 |    | 4 | 9 | 5 | 3  | 3  | 2 | 1 |

## Integer Division Sudoku

Follow Sudoku Rules. Some edges between cells are marked with a number. The number denotes the quotient received when the bigger number is divided by the smaller number, with any remainder discarded. For example, the number between a 3 and a 7, if marked, would be marked with a 2, since 7 divided by 3 is 2 (with a remainder of 1).

|   |   |  |   |   |   |   |   |   |
|---|---|--|---|---|---|---|---|---|
|   | 3 |  |   | 2 |   | 2 |   |   |
|   |   |  |   | 2 |   | 1 |   | 9 |
| 5 | 2 |  |   | 3 |   |   |   |   |
|   |   |  | 1 |   | 4 |   |   |   |
|   | 8 |  | 1 |   | 6 | 5 |   | 4 |
|   |   |  |   |   | 6 |   |   |   |
|   |   |  | 2 |   | 7 |   |   | 4 |
| 2 | 3 |  |   |   |   |   | 4 | 2 |
|   | 7 |  |   | 2 |   |   |   | 2 |

|   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
| 7 | 3 | 2 | 6 | 5 | 9 | 4 | 2 | 8 | 1 |
| 1 | 8 | 6 | 7 | 2 | 4 | 3 | 1 | 5 | 9 |
| 5 | 4 | 9 | 1 | 3 | 8 | 2 | 6 | 7 |   |
| 3 | 6 | 5 | 1 | 9 | 8 | 2 | 1 | 7 | 4 |
| 8 | 8 | 1 | 7 | 4 | 6 | 3 | 5 | 9 | 4 |
| 9 | 2 | 4 | 5 | 7 | 1 | 6 | 6 | 3 | 8 |
| 6 | 5 | 8 | 2 | 1 | 7 | 7 | 9 | 4 | 3 |
| 2 | 9 | 3 | 3 | 8 | 4 | 5 | 7 | 1 | 6 |
| 4 | 7 | 7 | 1 | 3 | 9 | 6 | 8 | 2 | 5 |

Follow Sudoku Rules. In addition, the digits in each circled cell must equal the sum of all the digits along the arrow's path; digits can repeat within an arrow.

|   |   |   |   |   |  |   |
|---|---|---|---|---|--|---|
| 7 |   |   | 4 |   |  | 3 |
|   |   |   | Q |   |  |   |
|   | 9 |   |   | 8 |  |   |
|   |   | 6 | 2 |   |  |   |
|   |   | 7 | 9 |   |  |   |
|   | 5 |   |   | 7 |  |   |
| 1 |   |   | 3 |   |  | 2 |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 7 | 2 | 8 | 9 | 4 | 5 | 6 | 1 | 3 |
| 3 | 5 | 1 | 8 | 7 | 6 | 2 | 9 | 4 |
| 4 | 5 | 9 | 1 | 2 | 3 | 8 | 7 | 5 |
| 9 | 8 | 3 | 6 | 1 | 2 | 4 | 5 | 7 |
| 6 | 1 | 7 | 3 | 5 | 4 | 9 | 2 | 8 |
| 5 | 4 | 2 | 7 | 8 | 9 | 1 | 3 | 6 |
| 8 | 3 | 5 | 2 | 6 | 1 | 7 | 4 | 9 |
| 2 | 7 | 4 | 5 | 9 | 8 | 3 | 6 | 1 |
| 1 | 9 | 6 | 4 | 3 | 7 | 5 | 8 | 2 |

Follow Sudoku Rules. There are three 6x6 Sudoku grids to solve that are colored **magenta/cyan/yellow**. Clues are provided on a fourth grid, where a clue in a primary color (**magenta/cyan/yellow**) indicates a clue in those grids, a clue in a secondary color (**red** = M+Y, **green** = C+Y, **blue** = C+M) equals the sum of the digits in the two grids that make up that color, and a clue in **black** equals the sum of the digits in all three grids. The circles and arrows give an equivalent indication of which digits in the colored grids contribute to the sums in the clue grid. Numbers (circled or not) do not repeat in the same cell in 2 puzzles; as a result, a clue such as a **green 4** can be a **yellow 1** + **cyan 3** but cannot be a **yellow 2** + **cyan 2**.

Figure 1 shows a 4x4 grid of numbers 1-6. The grid is divided into four quadrants by a vertical line. The top-left quadrant has numbers 4, 7, 11, 7, 5 in the first row and 1, 3, 4, 3 in the second row. The top-right quadrant has numbers 6, 9, 10 in the first row and 3, 4, 1 in the second row. The bottom-left quadrant has numbers 3, 6, 4, 9, 6 in the third row. The bottom-right quadrant is empty. To the right of the grid are three 4x4 grids showing different colorings: pink, blue, and yellow. Below the grids is a Venn diagram with three overlapping circles labeled 1, 2, and 3.

Follow Sudoku Rules. In addition, the sums of the digits in the indicated diagonals is given on the outside of the grid; digits can repeat in these diagonals provided they don't violate other sudoku rules. (The main diagonals may repeat digits.)

A 6x6 grid with numbers 1-42 and arrows indicating a path. The path starts at 1 (bottom-left) and ends at 42 (top-right). The numbers are placed at the intersections of the grid lines. The path is as follows: 1 (bottom-left) → 5 (bottom-left, 2nd row) → 15 (bottom-left, 3rd row) → 32 (bottom-left, 4th row) → 38 (bottom-left, 5th row) → 20 (bottom-left, 6th row) → 35 (bottom-left, 7th row) → 36 (bottom-left, 8th row) → 42 (top-right) → 25 (top-right, 2nd row) → 33 (top-right, 3rd row) → 37 (top-right, 4th row) → 23 (top-right, 5th row) → 15 (top-right, 6th row) → 5 (top-right, 7th row) → 2 (top-right, 8th row).

## 1234+567+89 Sudoku

Follow Sudoku Rules. Additionally, for the indicated rows, the sum of the 4-digit number, the 3-digit number, and the 2-digit number will equal the given total.

|   |  |   |    |    |    |    |   |
|---|--|---|----|----|----|----|---|
| 8 |  | 7 |    |    | 5  | 6  |   |
|   |  |   | 6+ |    | 5  | +  |   |
|   |  |   |    | +7 |    | +  |   |
|   |  |   | 1+ |    | 4+ |    |   |
|   |  | 2 |    | +  |    | 3+ |   |
|   |  | 5 |    |    | 7  |    |   |
|   |  |   |    | +1 |    | +  |   |
|   |  |   | 2+ |    | 8  | +  |   |
| 7 |  | 3 |    |    | 2  |    | 1 |

= 2232  
= 3393  
= 4464  
= 6696  
= 4500  
= 6633

|   |   |   |    |   |   |    |   |   |
|---|---|---|----|---|---|----|---|---|
| 8 | 9 | 7 | 3  | 2 | 1 | 5  | 4 | 6 |
| 1 | 3 | 4 | 6+ | 8 | 5 | 9+ | 2 | 7 |
| 2 | 5 | 6 | 9+ | 7 | 4 | 1+ | 8 | 3 |
| 3 | 7 | 8 | 1+ | 6 | 2 | 4+ | 5 | 9 |
| 6 | 1 | 2 | 5+ | 4 | 9 | 3+ | 7 | 8 |
| 9 | 4 | 5 | 8  | 3 | 7 | 6  | 1 | 2 |
| 4 | 2 | 9 | 7+ | 1 | 3 | 8+ | 6 | 5 |
| 5 | 6 | 1 | 2+ | 9 | 8 | 7+ | 3 | 4 |
| 7 | 8 | 3 | 4  | 5 | 6 | 2  | 9 | 1 |

= 2232  
= 3393  
= 4464  
= 6696  
= 4500  
= 6633

## Product Last-Digit Arrow Sudoku

Follow Sudoku rules. Additionally, for each arrow, multiply the numbers along that arrow. The last digit of the product is in the cell pointed to by that arrow. Digits can repeat within an arrow, and may also repeat with the cell pointed to by the arrow.

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 8 |   |   | 6 |   | 9 |   |   | 1 |
|   |   | 4 |   |   |   | 3 |   |   |
|   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |
| 6 |   |   |   | 4 |   |   |   | 8 |
|   |   |   | 3 |   | 5 |   |   |   |
|   |   | 2 |   |   |   | 6 |   |   |
|   | 1 |   |   |   |   |   | 7 |   |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 8 | 7 | 3 | 6 | 5 | 9 | 4 | 2 | 1 |
| 1 | 9 | 4 | 2 | 7 | 8 | 3 | 5 | 6 |
| 5 | 2 | 6 | 4 | 1 | 3 | 9 | 8 | 7 |
| 2 | 4 | 1 | 8 | 9 | 6 | 7 | 3 | 5 |
| 7 | 8 | 9 | 5 | 3 | 2 | 1 | 6 | 4 |
| 6 | 3 | 5 | 7 | 4 | 1 | 2 | 9 | 8 |
| 4 | 6 | 7 | 3 | 2 | 5 | 8 | 1 | 9 |
| 9 | 5 | 2 | 1 | 8 | 7 | 6 | 4 | 3 |
| 3 | 1 | 8 | 9 | 6 | 4 | 5 | 7 | 2 |



## 0-9 Sudoku

Follow Sudoku Rules, except that the ten numbers from 0-9 will be used instead of the nine numbers 1-9. Two numbers will go into each of the cells containing slashes (in any order).

|   |     |   |     |     |   |     |   |
|---|-----|---|-----|-----|---|-----|---|
|   |     | 8 | 5/6 |     |   | 4   |   |
|   | 7/0 |   |     | 3   |   | 2   |   |
| 5 |     |   |     | 0   |   |     | 8 |
|   |     | 7 | 3   |     |   |     | 6 |
| 1 |     |   | 8/4 |     |   |     | 5 |
| 4 |     |   |     | 7   | 3 |     |   |
| 2 |     |   | 8   |     |   |     | 0 |
|   | 3   |   | 2   |     |   | 7/9 |   |
|   | 5   |   |     | 1/4 | 6 |     |   |

|     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 3   | 1   | 8   | 5/6 | 9   | 2   | 0   | 4   | 7   |
| 9   | 7/0 | 6   | 4   | 3   | 8   | 5   | 2   | 1   |
| 5   | 2   | 4   | 7   | 1   | 0   | 9   | 6   | 8/3 |
| 0   | 8   | 7   | 3   | 5   | 9   | 2/4 | 1   | 6   |
| 1   | 9   | 3   | 2   | 8/4 | 6   | 7   | 0   | 5   |
| 4   | 6   | 5/2 | 1   | 0   | 7   | 3   | 8   | 9   |
| 7/2 | 4   | 9   | 8   | 6   | 3   | 1   | 5   | 0   |
| 6   | 3   | 1   | 0   | 2   | 5   | 8   | 7/9 | 4   |
| 8   | 5   | 0   | 9   | 7   | 1/4 | 6   | 3   | 2   |

## Countdown Sudoku

Follow Sudoku Rules, with the following changes: the regions are of varied size and must contain exactly the numbers from one of the following sets: 9, 98, 987, 9876, 98765, 987654, 9876543, 98765432, 987654321, 87654321, 7654321, 654321, 54321, 4321, 321, 21, 1. (The range changes accordingly for grid size.) Each set is used by exactly one region.

|   |   |  |   |   |   |  |  |   |
|---|---|--|---|---|---|--|--|---|
|   |   |  |   |   | 4 |  |  | 1 |
|   |   |  |   | 3 |   |  |  |   |
|   |   |  | 1 |   |   |  |  | 7 |
|   |   |  |   |   | 3 |  |  | 6 |
|   | 8 |  |   |   |   |  |  | 2 |
| 4 |   |  | 7 |   |   |  |  |   |
| 5 |   |  |   |   | 8 |  |  |   |
|   |   |  |   | 5 |   |  |  |   |
| 9 |   |  | 6 |   |   |  |  |   |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 8 | 2 | 5 | 3 | 6 | 4 | 9 | 7 | 1 |
| 7 | 9 | 1 | 2 | 3 | 5 | 4 | 6 | 8 |
| 6 | 5 | 3 | 1 | 4 | 2 | 8 | 9 | 7 |
| 1 | 7 | 9 | 5 | 8 | 3 | 2 | 4 | 6 |
| 3 | 8 | 7 | 4 | 9 | 6 | 1 | 2 | 5 |
| 4 | 6 | 8 | 7 | 2 | 1 | 3 | 5 | 9 |
| 5 | 1 | 2 | 9 | 7 | 8 | 6 | 3 | 4 |
| 2 | 4 | 6 | 8 | 5 | 9 | 7 | 1 | 3 |
| 9 | 3 | 4 | 6 | 1 | 7 | 5 | 8 | 2 |

## Surplus Sudoku

Standard Sudoku rules apply, with the following changes: each number appears at least once in each region (except for the single-celled region).

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 4 |   | 5 |   |   |   |
|   | 5 |   |   |   |   |
| 3 |   |   |   |   |   |
|   |   |   |   |   | 4 |
|   |   |   |   | 2 |   |
|   |   |   | 3 |   | 1 |

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 4 | 3 | 5 | 6 | 1 | 2 |
| 2 | 5 | 4 | 1 | 6 | 3 |
| 3 | 2 | 1 | 5 | 4 | 6 |
| 5 | 1 | 6 | 2 | 3 | 4 |
| 1 | 6 | 3 | 4 | 2 | 5 |
| 6 | 4 | 2 | 3 | 5 | 1 |

## Tight Fit Sudoku

Follow Sudoku Rules. In the grid there are some cells with slashes. Two numbers go into these cells, and the smaller number must always be entered above the larger number.

|    |    |    |    |    |    |
|----|----|----|----|----|----|
| 7/ |    |    | /  |    | 1/ |
|    | 4/ | 5/ | 7/ |    |    |
|    | 6/ |    |    | 9/ | /  |
| /  | 3/ |    |    | 4/ |    |
|    |    | 7/ | 4/ | 5/ |    |
| 5/ |    | /  |    |    | 8/ |

|     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|
| 7/8 | 2   | 3   | 5/9 | 6   | 1/4 |
| 1   | 4/9 | 5/6 | 7/8 | 2   | 3   |
| 4   | 6/7 | 1   | 3   | 8/9 | 2/5 |
| 2/9 | 3/5 | 8   | 6   | 1/4 | 7   |
| 6   | 8   | 2/7 | 1/4 | 3/5 | 9   |
| 3/5 | 1   | 4/9 | 2   | 7   | 6/8 |

## Deficit Sudoku

Standard Sudoku rules apply, with the following changes: each number appears at most once in each region but might not appear in all regions.

|   |   |   |  |   |
|---|---|---|--|---|
|   |   |   |  | 4 |
|   |   |   |  |   |
| 3 |   |   |  |   |
|   |   | 3 |  |   |
|   | 1 |   |  | 5 |

|   |   |   |   |   |
|---|---|---|---|---|
| 5 | 3 | 2 | 1 | 4 |
| 4 | 2 | 1 | 5 | 3 |
| 3 | 4 | 5 | 2 | 1 |
| 1 | 5 | 3 | 4 | 2 |
| 2 | 1 | 4 | 3 | 5 |

## Parquet Sudoku

Follow Sudoku Rules, except some cells are larger than others and belong in multiple rows and/or columns (for example, the dark grey squares each belong to 2 rows and 2 columns). No digits will repeat in any of the 12 rows, 12 columns, and 9 outlined 4×4 regions.

|  |   |  |   |   |   |   |   |
|--|---|--|---|---|---|---|---|
|  |   |  |   | 5 |   |   | 2 |
|  | 8 |  |   |   |   |   |   |
|  |   |  |   |   |   |   |   |
|  |   |  |   | 1 |   |   |   |
|  |   |  | 8 |   | 2 | 5 | 9 |
|  |   |  |   |   |   |   | 4 |
|  | 9 |  |   |   |   |   |   |
|  |   |  |   |   | 8 |   |   |
|  |   |  |   |   |   |   |   |
|  | 1 |  |   |   |   |   |   |
|  |   |  |   |   |   |   |   |
|  |   |  | 3 |   |   |   |   |
|  |   |  |   | 6 |   |   |   |

|   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 |   | 3 | 6 | 1 |   | 8 | 5 | 9 |   | 2 | 7 |
|   | 8 |   |   |   |   |   | 7 |   |   |   |   |
| 1 |   |   |   | 9 |   | 2 |   |   | 4 |   |   |
| 9 | 2 |   | 5 | 3 | 4 |   | 7 | 1 | 8 |   | 6 |
| 7 |   | 4 | 1 | 8 |   | 6 | 2 | 5 |   | 9 | 3 |
|   |   |   |   |   |   |   |   |   |   |   |   |
| 8 |   | 6 |   |   |   | 9 |   |   | 7 | 4 |   |
| 5 | 9 |   | 2 | 4 | 7 |   | 3 | 8 | 6 |   | 1 |
| 3 |   | 7 | 4 | 6 |   | 1 | 8 | 2 |   | 5 | 9 |
|   |   |   |   |   |   |   |   |   |   |   |   |
| 6 |   | 1 |   |   |   | 5 |   |   | 3 | 7 |   |
| 2 | 5 |   | 9 | 7 | 3 |   | 4 | 6 | 1 |   | 8 |

## Altered Sudoku

Fill in the cells such that six special cells can be "altered" to turn the grid into a solved standard Sudoku. The six special cells must contain six distinct numbers, and there must be exactly one special cell in each row, column, and region. Each special cell, when altered, must turn into a different number than the original, and all six special cells turn into different numbers. The arrowed indicators to the right and below the grid describe how the special cell in that row (or column) must be altered.

|   |   |   |   |   |   |
|---|---|---|---|---|---|
|   | 3 | 4 |   |   |   |
|   |   |   | 2 | 3 |   |
| 4 |   |   |   |   | 5 |
| 6 |   |   |   |   | 1 |
|   |   |   | 4 | 6 |   |
|   | 3 | 6 |   |   |   |

2→

→

4→6

→

→3

→

↓

3

↓

2

↓

5

↓

6

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 2 | 3 | 4 | 1 | 2 | 6 |
| 5 | 6 | 5 | 2 | 3 | 4 |
| 4 | 1 | 3 | 4 | 2 | 5 |
| 6 | 5 | 1 | 3 | 4 | 1 |
| 5 | 2 | 1 | 4 | 6 | 6 |
| 3 | 3 | 6 | 5 | 1 | 2 |

2→5

5→1

4→6

1→2

6→3

3→4

5

↓

1

3

↓

4

↓

2

↓

6

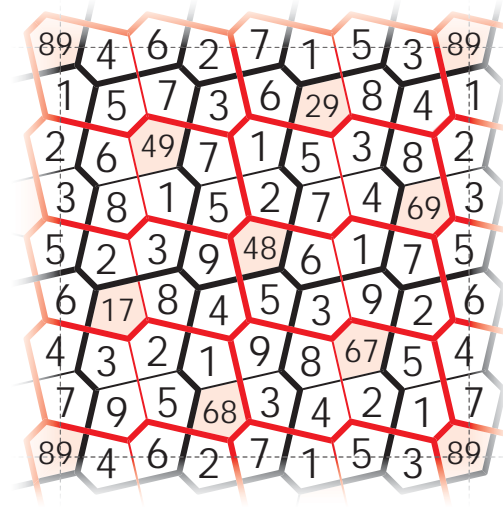
↓

5

↓

3

Standard Sudoku rules apply, with the following changes: Some cells contain two digits; those cells are shaded in light red. The outside rows and columns “wrap around” and are duplicated on both sides of the diagram. There are 16 regions of 8 cells each, outlined in thick red and black lines.



Follow Sudoku Rules. If a bar is given between two (orthogonally) adjacent cells, then the two numbers put in those cells must be consecutive (differing by one, such as 3 and 4). If a bar is not given, the two digits cannot be consecutive.

|   |   |  |   |   |   |   |   |
|---|---|--|---|---|---|---|---|
| 7 |   |  |   | 8 |   |   | 1 |
|   | 1 |  |   |   |   | 3 |   |
|   |   |  |   |   |   |   | 7 |
| 5 |   |  |   |   | 1 |   |   |
|   |   |  |   |   |   |   |   |
|   | 2 |  |   |   |   |   | 1 |
| 1 |   |  | 8 |   |   |   | 4 |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 7 | 5 | 3 | 9 | 4 | 8 | 2 | 6 | 1 |
| 9 | 1 | 8 | 7 | 2 | 6 | 4 | 3 | 5 |
| 6 | 4 | 2 | 1 | 5 | 3 | 8 | 7 | 9 |
| 8 | 3 | 1 | 2 | 6 | 9 | 5 | 4 | 7 |
| 2 | 6 | 4 | 5 | 1 | 7 | 9 | 8 | 3 |
| 5 | 9 | 7 | 3 | 8 | 4 | 1 | 2 | 6 |
| 3 | 8 | 6 | 4 | 9 | 1 | 7 | 5 | 2 |
| 4 | 2 | 9 | 6 | 7 | 5 | 3 | 1 | 8 |
| 1 | 7 | 5 | 8 | 3 | 2 | 6 | 9 | 4 |

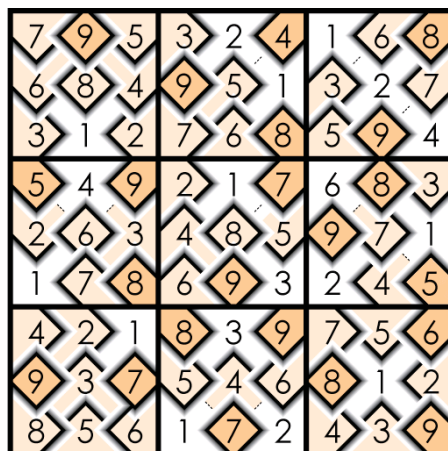
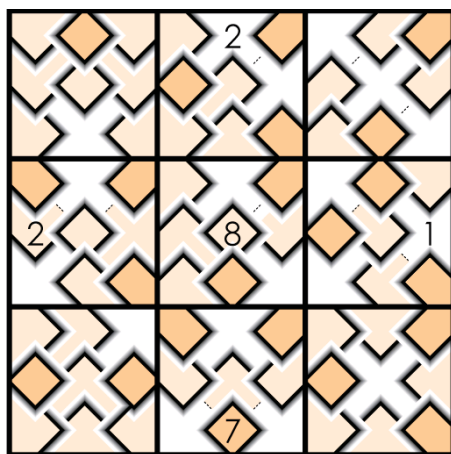
Follow Sudoku Rules, but use numbers 1-6 instead of 1-9. Consider each number to be the height of a building. The numbers outside the grid indicate how many buildings can be seen when looking in that direction (taller buildings conceal smaller buildings behind them).

|   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|
|   | 3 | 2 | 4 | 5 | 3 | 3 | 2 | 2 | 1 |   |
| 4 |   |   |   |   | 5 |   |   |   |   | 1 |
| 2 | 7 |   |   |   |   |   |   |   | 1 | 3 |
| 4 |   |   |   | 7 |   | 1 |   |   |   | 2 |
| 3 |   | 1 |   |   |   |   |   |   |   | 2 |
| 3 |   |   |   |   | 4 |   |   |   |   | 7 |
| 1 |   |   | 5 |   |   |   |   |   |   | 4 |
| 4 |   |   |   |   | 8 |   |   |   | 3 | 5 |
| 2 |   |   |   |   | 3 |   |   |   |   | 3 |
| 5 |   | 3 |   |   |   |   |   |   |   | 2 |
|   | 3 | 5 | 2 | 2 | 4 | 2 | 2 | 1 | 5 |   |

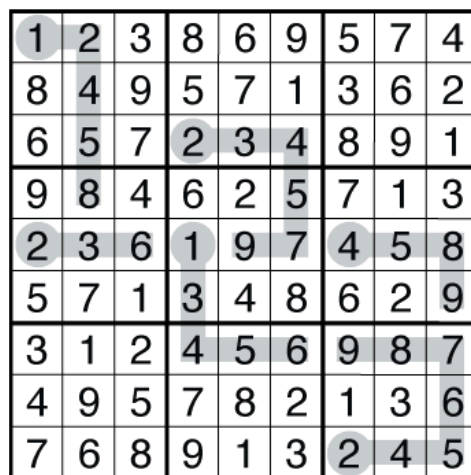
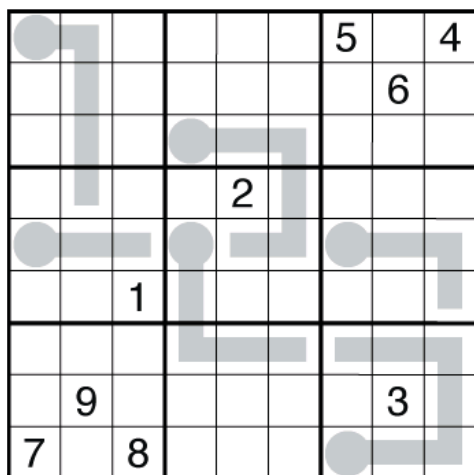
|   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|
|   | 3 | 2 | 4 | 5 | 3 | 3 | 2 | 2 | 1 |   |
| 4 | 6 | 4 | 1 | 2 | 5 | 3 | 7 | 8 | 9 | 1 |
| 2 | 7 | 9 | 3 | 4 | 6 | 8 | 2 | 1 | 5 | 3 |
| 4 | 2 | 5 | 8 | 7 | 9 | 1 | 3 | 4 | 6 | 2 |
| 3 | 4 | 1 | 2 | 3 | 7 | 6 | 9 | 5 | 8 | 2 |
| 3 | 3 | 8 | 6 | 5 | 4 | 9 | 1 | 2 | 7 | 2 |
| 1 | 9 | 7 | 5 | 8 | 1 | 2 | 4 | 6 | 3 | 4 |
| 4 | 1 | 6 | 7 | 9 | 8 | 4 | 5 | 3 | 2 | 5 |
| 2 | 8 | 2 | 9 | 1 | 3 | 5 | 6 | 7 | 4 | 3 |
| 5 | 5 | 3 | 4 | 6 | 2 | 7 | 8 | 9 | 1 | 2 |
|   | 3 | 5 | 2 | 2 | 4 | 2 | 2 | 1 | 5 |   |



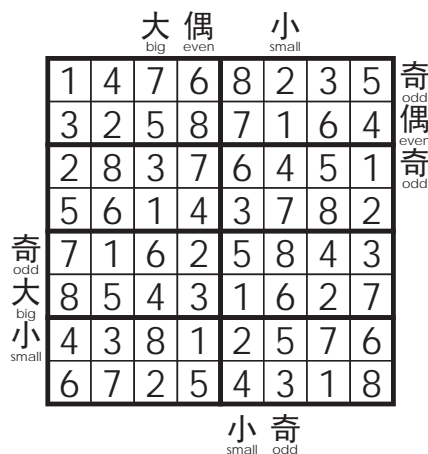
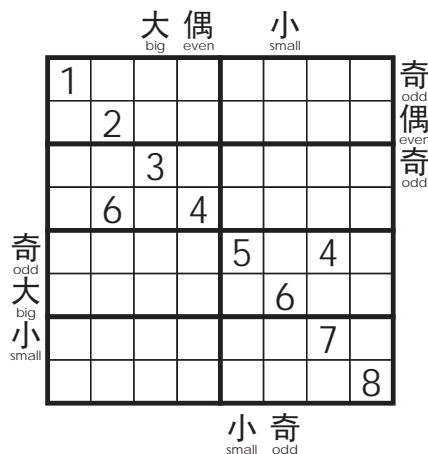
Follow Sudoku Rules. Adjacent cells in the same region have a "<" or ">" sign between them, indicating which cell is larger or smaller. The cells which are bigger than all their neighbors in the same box have a deep color; the cells that are smaller have no color.



Follow Sudoku Rules. In addition, the digits in each "thermometer"-shaped region must be strictly increasing from the circular bulb to the end.



Follow Sudoku Rules, with the following changes: the indicator symbol on the outside says that the first two numbers along that row or column are either odd/奇 (1,3,5,7), even/偶 (2,4,6,8), big/大 (5,6,7,8), or small/小 (1,2,3,4).





Follow Sudoku Rules. Digits are given outside of the grid, and each digit must appear in the first region (three cells) in that row/column.

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 4 | 5 | 7 | 2 | 8 | 1 | 6 | 9 | 3 |
| 1 | 9 | 3 | 7 | 5 | 6 | 8 | 2 | 4 |
| 8 | 2 | 6 | 4 | 3 | 9 | 7 | 5 | 1 |
| 5 | 8 | 2 | 1 | 7 | 3 | 4 | 6 | 9 |
| 9 | 7 | 4 | 8 | 6 | 5 | 1 | 3 | 2 |
| 3 | 6 | 1 | 9 | 2 | 4 | 5 | 8 | 7 |
| 2 | 4 | 8 | 5 | 9 | 7 | 3 | 1 | 6 |
| 6 | 1 | 5 | 3 | 4 | 2 | 9 | 7 | 8 |
| 7 | 3 | 9 | 6 | 1 | 8 | 2 | 4 | 5 |

Follow Sudoku Rules. The digits in the gray cells must be larger than all digits in horizontally or vertically adjacent white cells.

|   |   |  |   |  |   |  |   |   |
|---|---|--|---|--|---|--|---|---|
| 8 | 5 |  | 2 |  | 1 |  | 3 | 9 |
| 2 | 7 |  |   |  |   |  | 5 | 1 |
|   |   |  |   |  |   |  |   |   |
|   |   |  | 4 |  | 9 |  |   |   |
| 9 | 2 |  | 8 |  | 7 |  | 1 | 4 |
|   |   |  | 5 |  | 3 |  |   |   |
|   |   |  |   |  |   |  |   |   |
| 1 | 6 |  |   |  |   |  | 4 | 2 |
| 3 | 4 |  | 1 |  | 2 |  | 6 | 8 |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 8 | 5 | 6 | 2 | 7 | 1 | 4 | 3 | 9 |
| 2 | 7 | 9 | 3 | 8 | 4 | 6 | 5 | 1 |
| 4 | 1 | 3 | 9 | 5 | 6 | 8 | 2 | 7 |
| 6 | 3 | 1 | 4 | 2 | 9 | 7 | 8 | 5 |
| 9 | 2 | 5 | 8 | 6 | 7 | 3 | 1 | 4 |
| 7 | 8 | 4 | 5 | 1 | 3 | 2 | 9 | 6 |
| 5 | 9 | 2 | 6 | 4 | 8 | 1 | 7 | 3 |
| 1 | 6 | 8 | 7 | 3 | 5 | 9 | 4 | 2 |
| 3 | 4 | 7 | 1 | 9 | 2 | 5 | 6 | 8 |



Follow Sudoku Rules. This puzzle has multiple solutions for the entire grid, but there is at least one empty cell that will contain the same digit for all solutions. You are to locate and clearly identify just one digit that can be placed into the grid with absolute certainty.

|   |  |  |   |   |   |   |   |
|---|--|--|---|---|---|---|---|
|   |  |  | 1 |   |   |   | 3 |
| 1 |  |  |   | 2 |   | 5 |   |
|   |  |  |   |   | 4 |   |   |
|   |  |  |   |   |   |   |   |
|   |  |  |   |   | 6 |   |   |
|   |  |  |   |   |   |   |   |
|   |  |  |   |   | 8 |   |   |
| 5 |  |  |   | 1 |   | 3 |   |
|   |  |  | 7 |   |   |   | 2 |

|  |   |  |  |   |   |   |   |   |
|--|---|--|--|---|---|---|---|---|
|  |   |  |  | 1 |   | 2 |   | 3 |
|  | 1 |  |  |   | 2 |   | 5 |   |
|  |   |  |  |   |   | 4 |   |   |
|  |   |  |  |   |   |   |   |   |
|  |   |  |  |   |   | 6 |   |   |
|  |   |  |  |   |   |   |   |   |
|  |   |  |  |   |   | 8 |   |   |
|  | 5 |  |  |   | 1 |   | 3 |   |
|  |   |  |  | 7 |   |   |   | 2 |

Follow Sudoku Rules. This puzzle has multiple solutions for the entire grid, but there is at least one empty cell that will contain the same digit for all solutions. You are to locate and clearly identify just one digit that can be placed into the grid with absolute certainty. For your convenience, candidates are given. Candidates have been removed only if they were in the same row, column or box as one of the given digits.

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 1 |   |   |   |   |   |   |   | 8 |
|   |   | 5 |   | 8 |   |   |   |   |
|   | 8 |   |   |   | 9 |   |   | 6 |
| 3 |   |   |   |   | 7 | 2 |   |   |
|   | 2 |   | 5 | 6 | 1 | 7 | 3 | 4 |
| 4 | 5 | 7 | 3 |   |   | 6 |   | 1 |
| 5 |   |   | 9 |   |   |   | 4 | 2 |
|   |   |   |   |   | 5 | 8 | 6 |   |
|   |   | 2 |   |   |   |   |   |   |



|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 1 | 6 | 8 | 4 | 7 | 5 | 2 | 9 | 3 |
| 5 | 7 | 3 | 8 | 2 | 9 | 1 | 6 | 4 |
| 9 | 2 | 4 | 1 | 6 | 3 | 7 | 5 | 8 |
| 6 | 1 | 9 | 2 | 3 | 8 | 5 | 4 | 7 |
| 3 | 8 | 2 | 7 | 5 | 4 | 9 | 1 | 6 |
| 4 | 5 | 7 | 9 | 1 | 6 | 8 | 3 | 2 |
| 8 | 9 | 1 | 6 | 4 | 7 | 3 | 2 | 5 |
| 7 | 4 | 5 | 3 | 9 | 2 | 6 | 8 | 1 |
| 2 | 3 | 6 | 5 | 8 | 1 | 4 | 7 | 9 |

Follow Sudoku Rules. In addition, there are also six regions denoted by red lines; each number must appear exactly once in each of these regions.

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 7 | 9 | 8 | 6 |
| 9 | 8 | 4 | 2 | 6 | 1 | 5 | 7 | 3 |
| 6 | 5 | 7 | 8 | 9 | 3 | 1 | 2 | 4 |
| 7 | 1 | 9 | 6 | 3 | 8 | 4 | 5 | 2 |
| 8 | 3 | 2 | 5 | 1 | 4 | 6 | 9 | 7 |
| 4 | 6 | 5 | 9 | 7 | 2 | 3 | 1 | 8 |
| 2 | 4 | 1 | 3 | 8 | 9 | 7 | 6 | 5 |
| 3 | 7 | 6 | 1 | 2 | 5 | 8 | 4 | 9 |
| 5 | 9 | 8 | 7 | 4 | 6 | 2 | 3 | 1 |

## Windoku

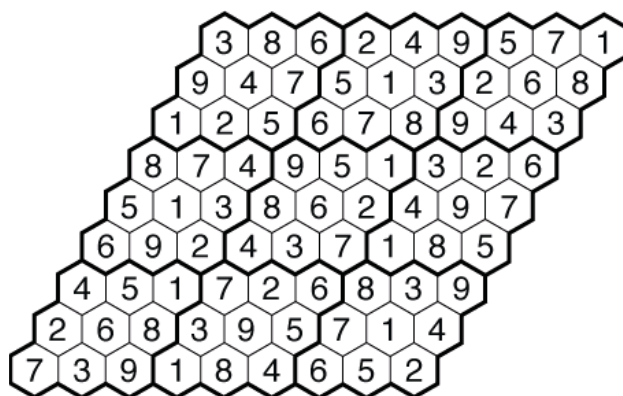
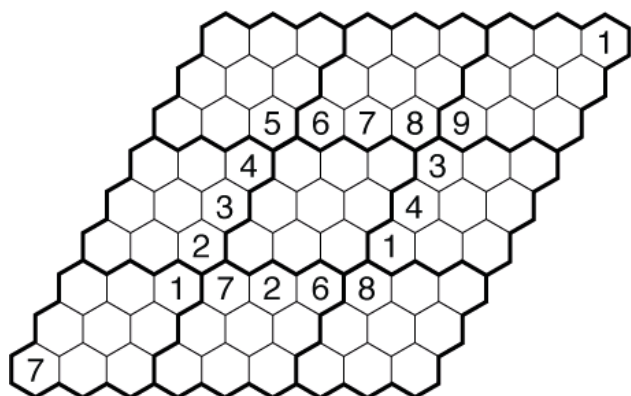
Follow Sudoku Rules. In addition, there are also four shaded 3×3 regions; each region must contain each number from 1 to 9 exactly once.

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
|   |   |   |   | 5 |   |   |   | 3 |
|   |   |   | 4 |   | 6 |   |   |   |
|   |   | 3 |   |   |   | 7 |   |   |
|   | 2 |   |   | 4 |   |   | 8 |   |
| 1 |   |   | 2 |   | 5 |   |   | 9 |
|   | 9 |   |   | 1 |   |   | 5 |   |
|   |   | 1 |   |   |   | 9 |   |   |
|   |   |   | 8 |   | 1 |   |   |   |
| 4 |   |   |   | 6 |   |   |   |   |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 2 | 4 | 6 | 1 | 5 | 7 | 8 | 9 | 3 |
| 9 | 8 | 7 | 4 | 3 | 6 | 5 | 1 | 2 |
| 5 | 1 | 3 | 9 | 8 | 2 | 7 | 4 | 6 |
| 7 | 2 | 5 | 6 | 4 | 9 | 3 | 8 | 1 |
| 1 | 3 | 8 | 2 | 7 | 5 | 4 | 6 | 9 |
| 6 | 9 | 4 | 3 | 1 | 8 | 2 | 5 | 7 |
| 8 | 6 | 1 | 7 | 2 | 4 | 9 | 3 | 5 |
| 3 | 5 | 2 | 8 | 9 | 1 | 6 | 7 | 4 |
| 4 | 7 | 9 | 5 | 6 | 3 | 1 | 2 | 8 |

## Hexagon Sudoku

Follow Sudoku Rules. Digits do not repeat along any of the three directions in which the hexagonal cells share edges.



## Double Diagonal Sudoku

Follow Sudoku Rules. Additionally the digits 1 to 9 cannot repeat in any of the four eight-cell diagonals drawn on the grid.

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 7 |   |   |   | 5 |   |   |   | 4 |
|   | 5 |   | 4 |   | 6 |   | 1 |   |
|   |   | 3 |   |   |   | 7 |   |   |
|   | 2 |   |   |   |   |   | 8 |   |
| 1 |   |   |   | 2 |   |   |   | 9 |
|   | 9 |   |   |   |   |   | 7 |   |
|   |   | 8 |   |   |   | 2 |   |   |
|   | 3 |   | 7 |   | 5 |   | 6 |   |
| 4 |   |   |   | 6 |   |   |   | 7 |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 7 | 6 | 1 | 3 | 5 | 8 | 9 | 2 | 4 |
| 2 | 5 | 9 | 4 | 7 | 6 | 8 | 1 | 3 |
| 8 | 4 | 3 | 2 | 9 | 1 | 7 | 5 | 6 |
| 5 | 2 | 7 | 6 | 3 | 9 | 4 | 8 | 1 |
| 1 | 8 | 4 | 5 | 2 | 7 | 6 | 3 | 9 |
| 3 | 9 | 6 | 1 | 8 | 4 | 5 | 7 | 2 |
| 6 | 7 | 8 | 9 | 1 | 3 | 2 | 4 | 5 |
| 9 | 3 | 2 | 7 | 4 | 5 | 1 | 6 | 8 |
| 4 | 1 | 5 | 8 | 6 | 2 | 3 | 9 | 7 |

## Dragon Sudoku

Standard Sudoku rules apply, with the following changes: Each 9 "sees" exactly 8 other distinct numbers. They see in all four directions until they hit a wall.

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 9 | 6 |   |   | 5 |   |   |   | 7 |
|   |   |   | 9 |   | 6 |   |   | 3 |
|   |   | 2 |   |   |   | 9 |   |   |
|   | 9 |   |   |   |   |   |   | 8 |
| 8 |   |   |   | 9 |   |   |   | 6 |
|   | 3 |   |   |   |   |   | 9 |   |
|   |   | 9 |   |   |   | 8 |   |   |
| 5 |   |   | 4 |   | 9 |   |   |   |
| 2 |   |   |   | 3 |   |   | 7 | 9 |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 9 | 6 | 3 | 2 | 5 | 8 | 4 | 1 | 7 |
| 1 | 8 | 4 | 9 | 7 | 6 | 5 | 2 | 3 |
| 7 | 5 | 2 | 3 | 4 | 1 | 9 | 6 | 8 |
| 4 | 9 | 7 | 1 | 6 | 2 | 3 | 8 | 5 |
| 8 | 2 | 1 | 5 | 9 | 3 | 7 | 4 | 6 |
| 6 | 3 | 5 | 7 | 8 | 4 | 2 | 9 | 1 |
| 3 | 1 | 9 | 6 | 2 | 7 | 8 | 5 | 4 |
| 5 | 7 | 8 | 4 | 1 | 9 | 6 | 3 | 2 |
| 2 | 4 | 6 | 8 | 3 | 5 | 1 | 7 | 9 |

## Musketry Sudoku

Follow Sudoku Rules. There are 5 overlapping standard sudoku grids which each obey standard sudoku rules.

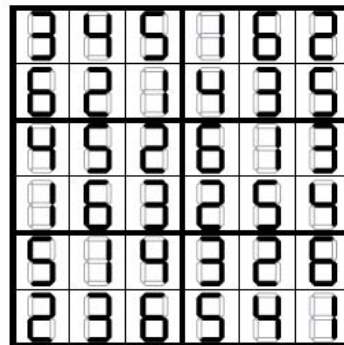
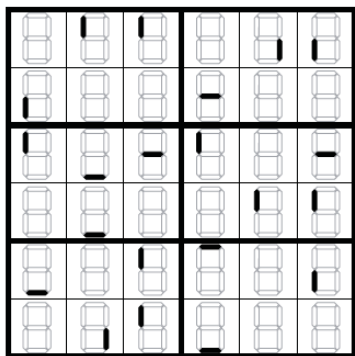
|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
|   |   | 5 |   |   | 1 |   |   | 7 |
|   |   |   |   |   | 2 | 1 |   |   |
|   |   | 8 |   | 3 |   |   | 5 |   |
|   | 7 |   |   |   |   |   | 8 | 4 |
|   |   |   |   |   |   |   | 2 | 7 |
| 5 |   | 6 |   |   |   | 4 |   |   |
|   | 9 |   |   |   | 7 |   |   | 2 |
|   | 8 | 4 |   |   | 2 |   |   | 9 |
| 7 | 2 |   |   | 9 |   |   |   | 8 |
|   |   |   |   | 3 |   |   |   | 3 |
|   |   | 3 |   | 5 |   |   |   | 2 |
|   |   | 2 | 8 |   |   |   |   | 9 |
|   |   |   | 1 |   |   | 4 |   | 9 |
|   |   |   | 5 | 4 |   |   |   |   |
| 9 |   |   | 2 |   |   |   | 1 |   |

|   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|
|   |   |   | 2 | 5 | 6 | 3 | 9 | 1 | 8 | 4 | 7 |
|   |   |   | 4 | 9 | 7 | 5 | 8 | 2 | 1 | 6 | 3 |
|   |   |   | 8 | 1 | 3 | 6 | 7 | 4 | 5 | 9 | 2 |
| 1 | 7 | 8 | 9 | 4 | 5 | 2 | 6 | 3 | 7 | 1 | 8 |
| 2 | 3 | 9 | 6 | 7 | 1 | 4 | 5 | 8 | 3 | 2 | 9 |
| 5 | 4 | 6 | 3 | 2 | 8 | 7 | 1 | 9 | 4 | 5 | 6 |
| 3 | 9 | 1 | 5 | 6 | 2 | 8 | 4 | 7 | 9 | 3 | 1 |
| 6 | 8 | 4 | 7 | 3 | 9 | 1 | 2 | 5 | 6 | 8 | 4 |
| 7 | 2 | 5 | 1 | 8 | 4 | 9 | 3 | 6 | 2 | 7 | 5 |
| 8 | 6 | 7 | 2 | 1 | 3 | 5 | 9 | 4 | 8 | 6 | 7 |
| 9 | 1 | 3 | 4 | 5 | 7 | 6 | 8 | 2 | 1 | 9 | 3 |
| 4 | 5 | 2 | 8 | 9 | 6 | 3 | 7 | 1 | 5 | 4 | 2 |
|   |   |   | 3 | 2 | 1 | 7 | 6 | 8 | 4 | 5 | 9 |
|   |   |   | 6 | 7 | 5 | 4 | 1 | 9 | 3 | 2 | 8 |
|   |   |   | 9 | 4 | 8 | 2 | 5 | 3 | 7 | 1 | 6 |



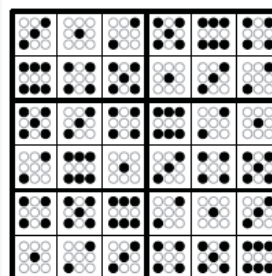
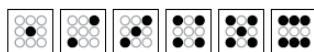
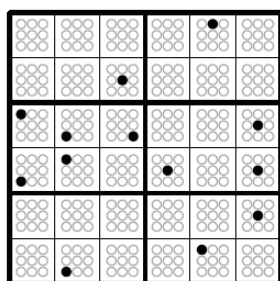
## Digital Sudoku

Follow Sudoku Rules, except the digits 1 to 6 appear in each row, column, and region. Clues are given in the form of lit segments of an LED. Only digits that contain those lit segments can appear in a given cell.



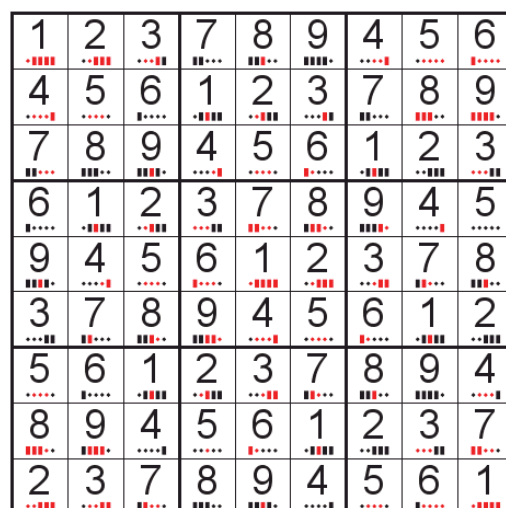
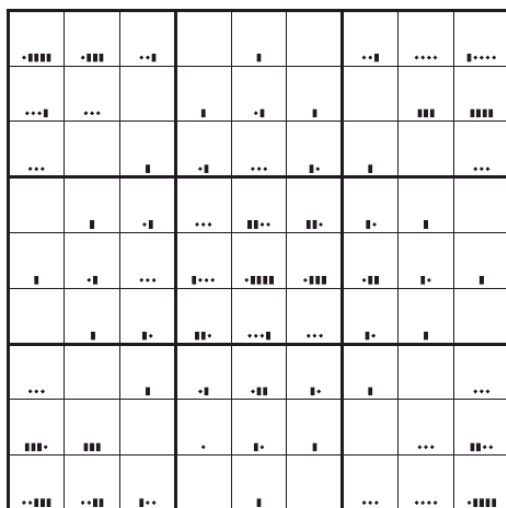
## Dice Pip Sudoku

Follow Sudoku Rules, except only 1 to 6 will appear in each row, column, and region. Clues are given in the forms of pips, as on dice; only digits that contain a pip in the indicated spot can be filled into a cell. Please submit your answer using either shaded pips or numbers (but not both).



## Morse Sudoku

Follow Sudoku rules, using numbers 1-6 instead of 1-9. Clues are given in the forms of dots and dashes. A number can only be entered into a cell if it contains the exact pattern of dots and dashes somewhere in its encoding.



## S as in Sudoku

Follow Sudoku Rules. In the grid are some letters; only numbers that contain that letter in their English spelling can be entered into those cells. For example, an S clue can only be a 6 or a 7 as SIX and SEVEN have an S in their spelling but no other number does.

|           |   |   |   |   |   |   |   |   |   |
|-----------|---|---|---|---|---|---|---|---|---|
| 1 - ONE   | O | N | E |   |   |   |   |   |   |
| 2 - TWO   |   |   | T | W | O |   |   |   |   |
| 3 - THREE |   |   |   |   | T | H | R | E | E |
| 4 - FOUR  |   |   |   |   |   | F | O | U | R |
| 5 - FIVE  | F | I | V | E |   |   |   |   |   |
| 6 - SIX   |   |   | S | I | X |   |   |   |   |
| 7 - SEVEN |   |   |   | S | E | V | E | N |   |
| 8 - EIGHT | E | I | G | H | T |   |   |   |   |
| 9 - NINE  | N | I | N | E |   |   |   |   | 9 |

|   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
| O | N | E |   |   |   |   |   |   |   |
| 1 | 7 | 9 | 4 | 5 | 6 | 2 | 3 | 8 |   |
| 8 | 4 | 3 | 2 | 1 | 7 | 6 | 5 | 9 |   |
| 5 | 2 | 6 | 9 | 8 | 3 | 4 | 1 | 7 |   |
| 6 | 8 | 2 | 7 | 9 | 5 | 1 | 4 | 3 |   |
| 4 | 9 | 5 | 1 | 3 | 2 | 8 | 7 | 6 |   |
| 3 | 1 | 7 | 8 | 6 | 4 | 9 | 2 | 5 |   |
| 2 | 3 | 4 | 6 | 5 | 7 | 9 | 5 | 8 | 1 |
| 9 | 5 | 8 | 3 | 2 | 1 | 7 | 6 | 4 |   |
| 7 | 6 | 1 | 5 | 4 | 8 | 3 | 9 | 2 |   |

## Roman Numeral Sudoku

Follow Sudoku Rules. Only numbers that contain the given clues as presented in their Roman Numeral form can be entered in a cell. For example, a V clue could be a 4, 5, 6, 7, or 8. Please submit your solution with standard numbers or Roman Numerals, but not both.

|     |    |     |     |     |      |     |     |     |
|-----|----|-----|-----|-----|------|-----|-----|-----|
| II  | V  | VII | II  | III |      | I   | V   | I   |
| I   | II | VI  | V   | I   | I    | I   | III | X   |
| I   | IX | V   | I   | VI  | II   | I   | VII | I   |
| V   | II |     | III | I   | VIII | V   | V   | VI  |
| III | I  | III | II  | II  | IV   |     | I   | V   |
| VII | I  | V   | IX  | V   | V    | III | III | II  |
| IX  | II | II  | IV  | III | V    | I   | VI  | II  |
| IV  | V  | I   | VI  | I   | II   | VII | IX  | VII |
| V   | II | III | VI  |     | I    | V   | I   | V   |

|      |   |
|------|---|
| I    | 1 |
| II   | 2 |
| III  | 3 |
| IV   | 4 |
| V    | 5 |
| VI   | 6 |
| VII  | 7 |
| VIII | 8 |
| IX   | 9 |

|      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|
| II   | IV   | VII  | VIII | III  | IX   | VI   | V    | I    |
| 2    | 4    | 7    | 8    | 3    | 9    | 6    | 5    | 1    |
| I    | VIII | VI   | V    | IV   | VII  | II   | III  | IX   |
| 1    | 8    | 6    | 5    | 4    | 7    | 2    | 3    | 9    |
| III  | IX   | V    | I    | VI   | II   | IV   | VII  | VIII |
| 3    | 9    | 5    | 1    | 6    | 2    | 4    | 7    | 8    |
| V    | II   | IX   | III  | I    | VIII | VII  | IV   | VI   |
| 5    | 2    | 9    | 3    | 1    | 8    | 7    | 4    | 6    |
| VIII | VI   | III  | II   | VII  | IV   | IX   | I    | V    |
| 8    | 6    | 3    | 2    | 7    | 4    | 9    | 1    | 5    |
| VII  | I    | IV   | IX   | V    | VI   | III  | VIII | II   |
| 7    | 1    | 4    | 9    | 5    | 6    | 3    | 8    | 2    |
| IX   | VII  | II   | IV   | VIII | V    | I    | VI   | III  |
| 9    | 7    | 2    | 4    | 8    | 5    | 1    | 6    | 3    |
| IV   | V    | I    | VI   | II   | III  | VIII | IX   | VII  |
| 4    | 5    | 1    | 6    | 2    | 3    | 8    | 9    | 7    |
| VI   | III  | VIII | VII  | IX   | I    | V    | II   | IV   |
| 6    | 3    | 8    | 7    | 9    | 1    | 5    | 2    | 4    |

## Trinary Sudoku

Follow Sudoku rules, except that the digits 0-8 in trinary (00, 01, 02, 10, 11, 12, 20, 21, 22) will be used instead of the numbers 1-9. Givens may be the first, second or both digits of the final number. When only one digit is given, it should be clear which digit (the first or second) is the one given.

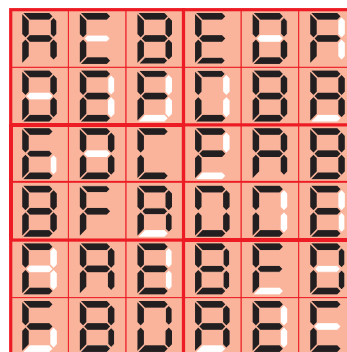
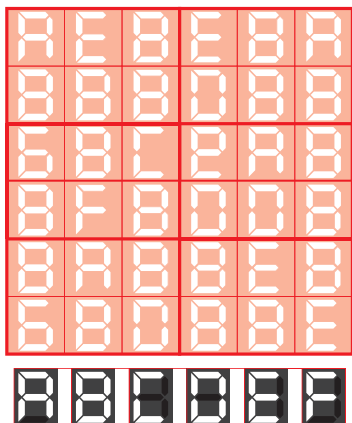
|    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|
| 11 |    |    |    | 0  |    | 0  | 0  |    |
|    |    | 0  |    | 10 |    | 0  |    | 1  |
|    | 0  | 01 |    |    |    |    | 1  | 1  |
|    |    |    | 22 |    | 12 |    |    |    |
| 2  | 02 |    |    | 20 |    |    | 01 | 0  |
|    |    |    | 02 |    | 00 |    |    |    |
| 0  | 0  |    |    |    |    | 02 | 1  |    |
| 0  |    | 1  |    | 12 |    | 1  |    |    |
|    | 1  | 1  |    | 0  |    |    |    | 20 |

|    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|
| 11 | 21 | 02 | 12 | 00 | 01 | 20 | 10 | 22 |
| 12 | 22 | 20 | 11 | 10 | 21 | 00 | 02 | 01 |
| 10 | 00 | 01 | 20 | 22 | 02 | 12 | 21 | 11 |
| 01 | 10 | 00 | 22 | 11 | 12 | 21 | 20 | 02 |
| 22 | 02 | 12 | 21 | 20 | 10 | 11 | 01 | 00 |
| 20 | 11 | 21 | 02 | 01 | 00 | 22 | 12 | 10 |
| 00 | 01 | 22 | 10 | 21 | 20 | 02 | 11 | 12 |
| 02 | 20 | 11 | 01 | 12 | 22 | 10 | 00 | 21 |
| 21 | 12 | 10 | 00 | 02 | 11 | 01 | 22 | 20 |



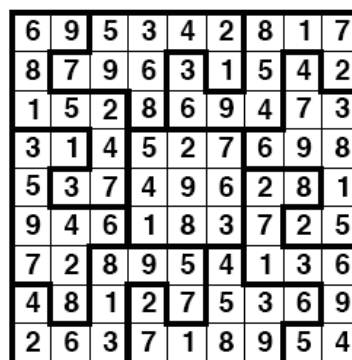
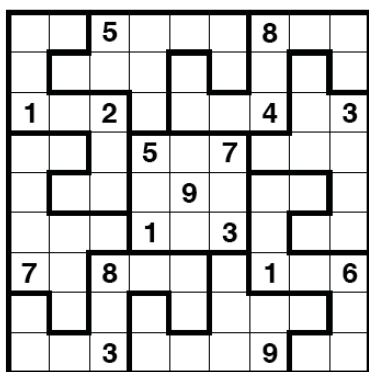
## Inverse-Digital Letter Sudoku

Follow Sudoku rules, except that the letters A through I are used instead of the numbers 1 through 9. Clues are given in the form of segments of an LED. Only letters that contain some subset of those segments can appear in a given cell.



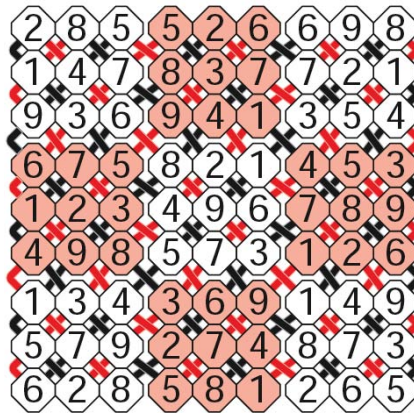
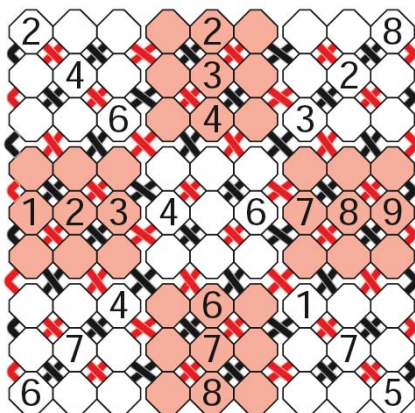
## Irregular Sudoku

Follow Sudoku Rules, except the regions are not uniform 3×3 boxes but instead have irregular shapes.



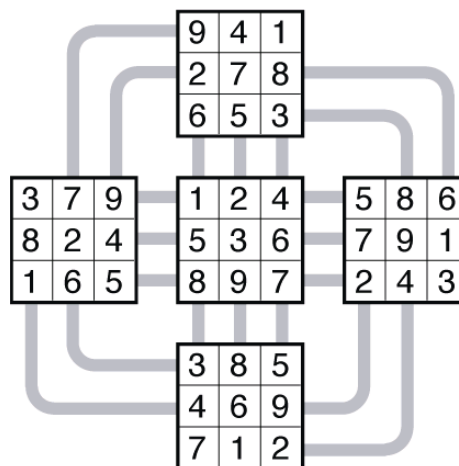
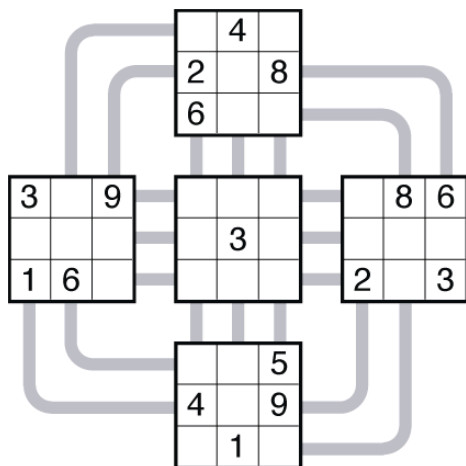
## Weave Sudoku

Standard Sudoku rules apply, with the following changes: the rows and column have been replaced with the "weaving" diagonals that go down the grid, bouncing at the edges of the grid, as indicated by the black and red lines. The digits 1 to N appear once in each of the following 3N regions: the N red diagonals, the N black diagonals, and the N boxes (shaded in white and red).



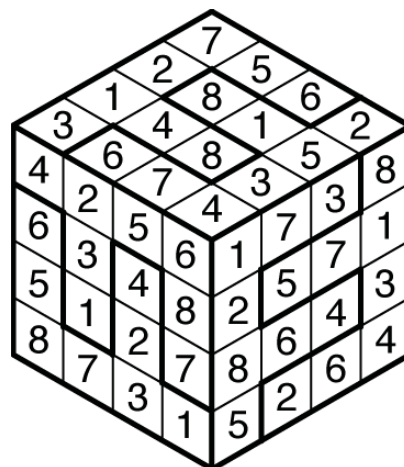
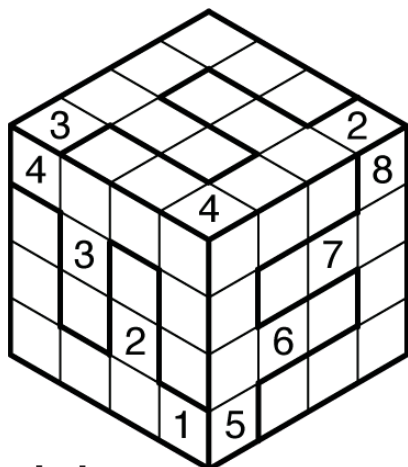
## Sudo-Kurve

Follow Sudoku Rules. The digits 1-9 appear once in each of the six 3×3 boxes and 12 bent "rows" (indicated by light curved lines). All "rows" contain exactly 9 cells.



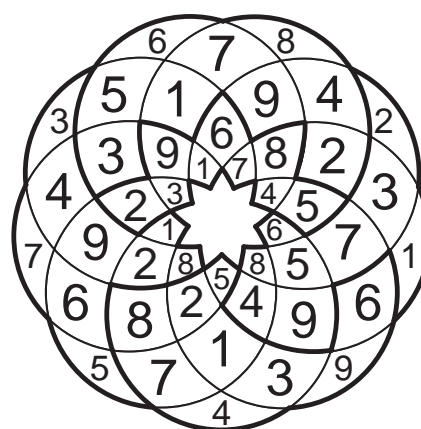
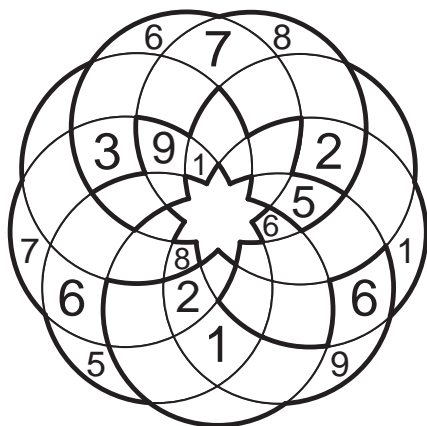
## Isometric Sudoku

Follow Sudoku Rules. The digits 1-8 appear once in each of the 6 irregular regions and 12 "rows". A "row" follows the opposite, parallel sides of each quadrilateral.



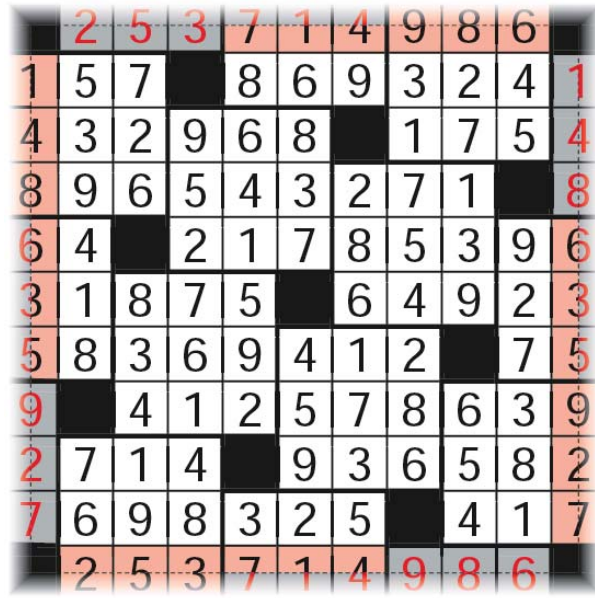
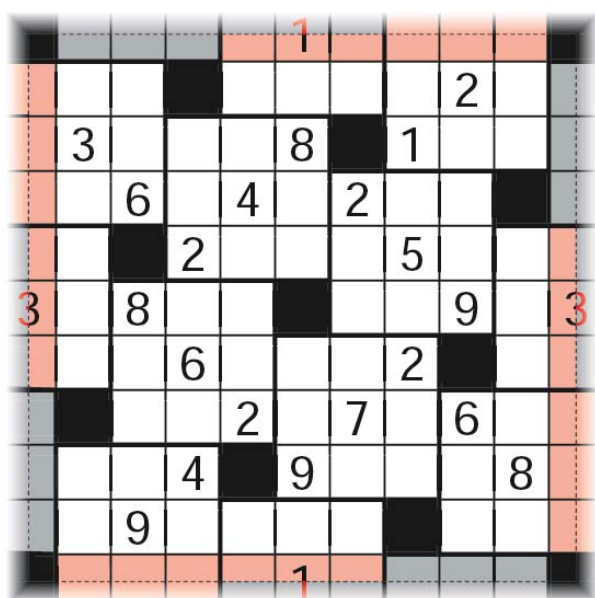
## Primrose Sudoku

Follow Sudoku rules. The digits 1-9 appear once in each of the 9 circular "rows" and each of the 6 outlined regions. A "row" is the nine cells touching the inside edge of one of the nine circles.



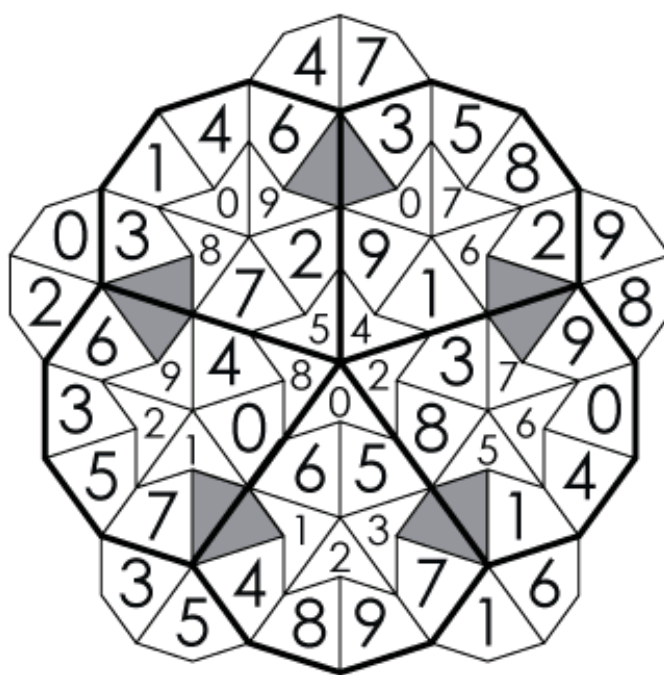
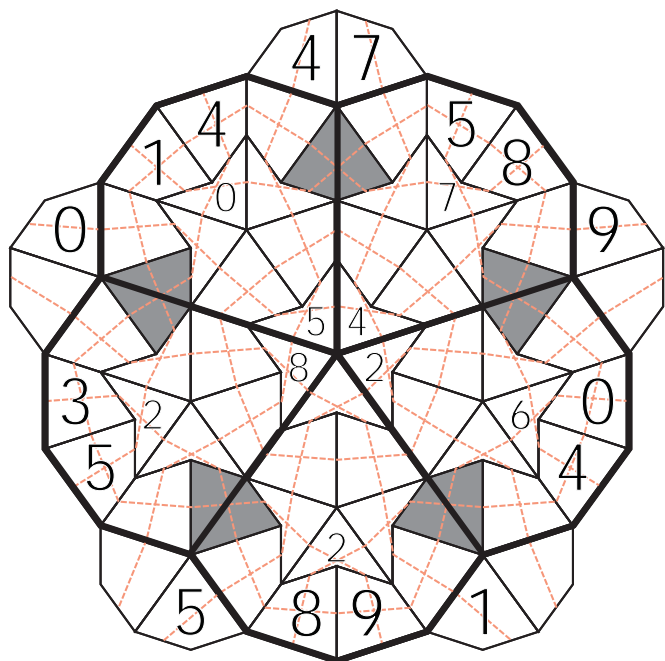
## Ten-Box Sudoku

Follow Sudoku rules. The puzzle is toroidal and the left/right and top/bottom edges of the grid map to each other. The digits 1 to 9 will appear once in each of the 10 rows, 10 columns, and 10 3×3 regions. The outer-edge of the grid (where the repeat occurs) is colored pink/gray to help identify the wrapping. Note that the grid contains some black squares which will not contain any numbers.



## Penrose-2 Sudoku

Follow Sudoku rules. The digits 0-9 appear once in each of the 5 outlined regions and each of the 10 "rows." A "row" follows the opposite side of each quadrilateral, and are also indicated by the dotted pink lines.





## Triple-Double Sudoku

Follow Sudoku Rules. There are two grids provided, each with three shaded regions. An exact correspondence of digits between these shaded regions will occur in the two puzzles, although which regions match up must be determined.

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
|   |   |   | 1 |   |   | 7 |   | 5 |
|   |   |   |   | 6 |   |   | 2 |   |
|   |   |   |   |   | 7 |   |   | 8 |
| 8 |   |   |   |   |   | 3 |   |   |
|   | 5 |   |   |   |   |   | 7 |   |
|   |   | 7 |   |   |   |   |   | 2 |
| 1 |   |   | 8 |   |   |   |   |   |
|   | 3 |   |   | 4 |   |   |   |   |
| 6 |   | 5 |   |   | 9 |   |   |   |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 1 |   | 4 |   |   |   | 5 |   | 6 |
|   | 7 |   |   | 4 |   |   | 2 |   |
| 9 |   |   | 1 |   | 8 |   |   | 3 |
|   |   | 5 |   |   |   | 8 |   |   |
|   | 1 |   |   |   |   |   | 5 |   |
| 7 |   |   |   |   |   |   |   | 4 |
|   |   |   |   |   |   |   |   |   |
|   |   |   |   | 7 |   |   |   |   |
|   |   |   | 6 | 3 | 1 |   |   |   |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 2 | 9 | 6 | 1 | 8 | 4 | 7 | 3 | 5 |
| 7 | 8 | 4 | 5 | 6 | 3 | 1 | 2 | 9 |
| 5 | 1 | 3 | 9 | 2 | 7 | 6 | 4 | 8 |
| 8 | 2 | 9 | 6 | 7 | 1 | 3 | 5 | 4 |
| 4 | 5 | 1 | 2 | 3 | 8 | 9 | 7 | 6 |
| 3 | 6 | 7 | 4 | 9 | 5 | 8 | 1 | 2 |
| 1 | 7 | 2 | 8 | 5 | 6 | 4 | 9 | 3 |
| 9 | 3 | 8 | 7 | 4 | 2 | 5 | 6 | 1 |
| 6 | 4 | 5 | 3 | 1 | 9 | 2 | 8 | 7 |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 1 | 3 | 4 | 9 | 2 | 7 | 5 | 8 | 6 |
| 8 | 7 | 6 | 3 | 4 | 5 | 1 | 2 | 9 |
| 9 | 5 | 2 | 1 | 6 | 8 | 7 | 4 | 3 |
| 3 | 4 | 5 | 2 | 9 | 6 | 8 | 1 | 7 |
| 6 | 1 | 9 | 7 | 8 | 4 | 3 | 5 | 2 |
| 7 | 2 | 8 | 5 | 1 | 3 | 9 | 6 | 4 |
| 4 | 9 | 3 | 8 | 5 | 2 | 6 | 7 | 1 |
| 5 | 6 | 1 | 4 | 7 | 9 | 2 | 3 | 8 |
| 2 | 8 | 7 | 6 | 3 | 1 | 4 | 9 | 5 |



# Jigsaw Sudoku

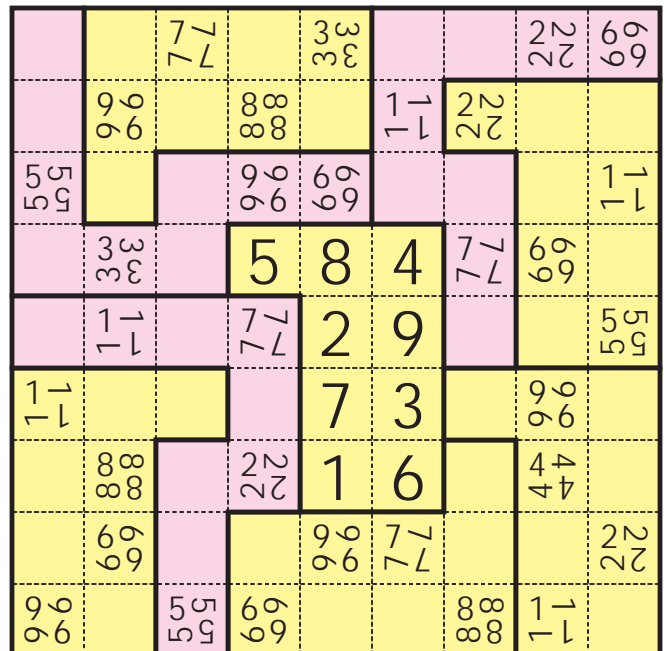
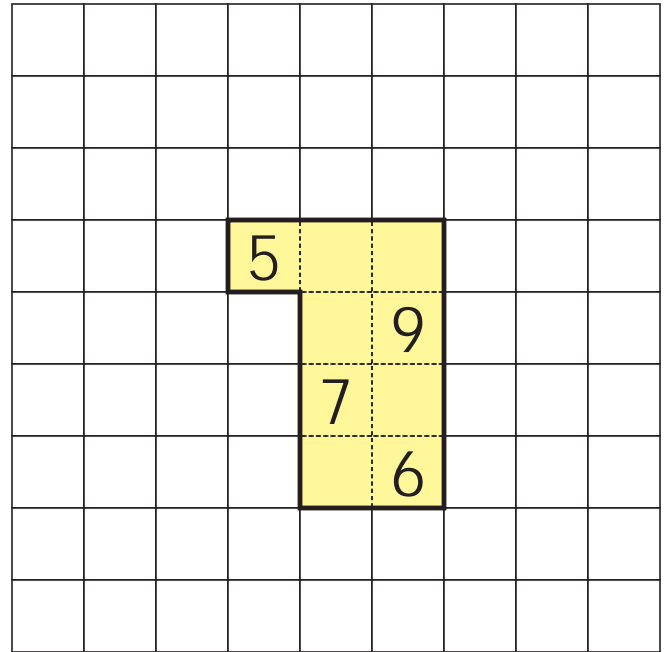
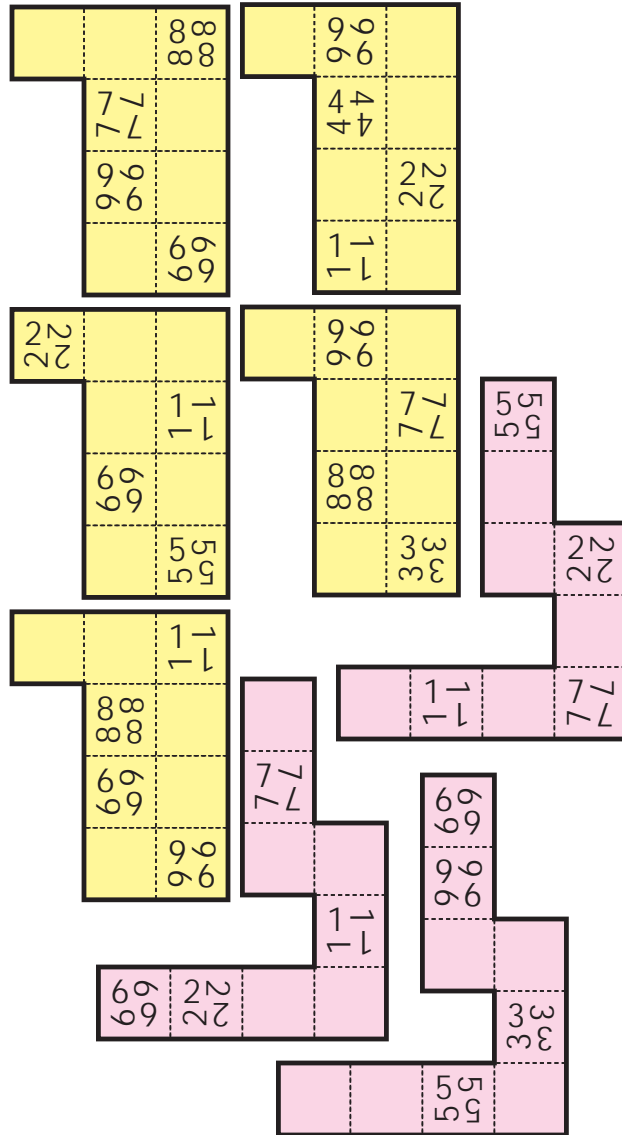
See Instruction Booklet for detailed instructions.

Place the 32 physical pieces (8 per grid) onto the grid so that no nonominoes overlap and the resulting grids form a valid 9x9 Irregular Sudoku.

- Only two colors (two types of nonomino) are used in any grid.
- One of the grids must have a rotationally symmetric arrangement of nonomino shapes (but the numbers will not be symmetric).

After you have determined where all the pieces go, solve the Irregular Sudoku.

Example uses only one grid.





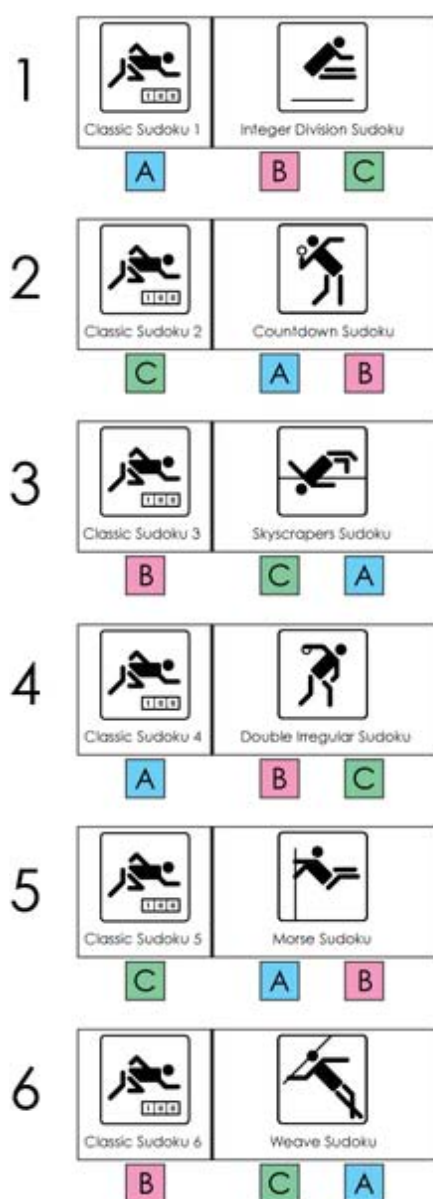


## Track and Field Relay

One team member starts alone at the table with a track puzzle, an easy-moderate standard sudoku. The other two team members sit together with a field puzzle: a 9x9 puzzle from one of the Field Rounds.

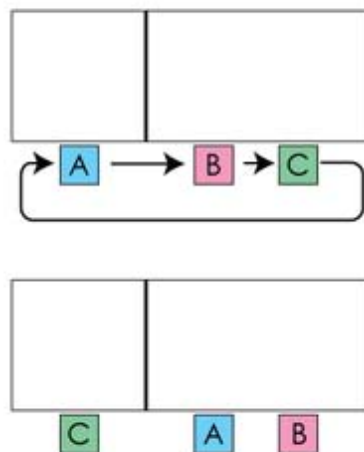
At the start of the round, both the individual and pair set to work on their puzzles. When both puzzles are finished, the two grids are turned in and the proctors will deliver a new track puzzle and the next field puzzle to the respective desks. Individuals will change positions by moving one chair to the right to alternate roles. Across all 6 stages of the relay, a team member will have worked alone on a Track puzzle 2 times and on a Field puzzle with another team member 4 times.

The following diagram shows how the round order and position swapping will occur.



Both puzzles in each round must be turned in to advance to next round

Solvers rotate to the right after each round as shown below







## Pentathlon Relay

The other four puzzles in this round are all harder forms of variants seen in the Individual rounds. Each pair of puzzles has four lettered cells in common, as indicated on this page. Fill in the common cells on this page. (Each puzzle has a unique solution, even ignoring the connections on this page.)

|   |   |   |   |   |    |   |   |   |  |
|---|---|---|---|---|----|---|---|---|--|
| 1 |   |   | A |   |    |   |   |   |  |
| 2 |   |   |   |   |    |   | B |   |  |
| 3 |   |   |   |   |    |   |   |   |  |
| 4 |   | F |   |   | C  |   |   |   |  |
| 5 | J | K | L |   |    |   |   | G |  |
| 6 |   | M | H |   | Ch |   |   | D |  |
| 7 |   |   |   |   |    |   | N |   |  |
| 8 |   |   |   |   |    | I |   |   |  |
| 9 |   |   |   | E |    |   |   |   |  |

|   |   |   |   |  |   |  |   |  |   |
|---|---|---|---|--|---|--|---|--|---|
| 8 |   |   | C |  |   |  |   |  |   |
|   |   |   | M |  |   |  |   |  |   |
|   | K |   |   |  |   |  | N |  |   |
| O | D |   |   |  | T |  |   |  |   |
|   |   |   | J |  |   |  | P |  |   |
|   |   |   |   |  |   |  |   |  |   |
|   |   | N | L |  |   |  | R |  |   |
|   |   | S |   |  |   |  |   |  |   |
|   | S |   |   |  | R |  |   |  | 9 |

Donut Sudoku appeared in Czech 2009 championship, will not appear in WSC5

Rules: Follow Sudoku Rules. Numbers may not repeat within a "donut" but the "donut hole" may match a number within the donut.

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 5 | O |   |   | 9 |   | 1 |   |   |
|   | 3 |   | A |   |   | 4 |   |   |
| U |   | 3 | V |   |   | P | X | 5 |
| Y |   |   | 2 | R | 5 |   |   | 6 |
| E |   | 6 |   |   | 2 |   |   |   |
| 2 |   |   | 4 | D | 8 |   | C | B |
| 6 |   |   |   |   |   | 8 |   |   |
|   |   | 9 | S | Z |   |   | 7 |   |
|   | 7 |   |   | 1 |   | T |   | 3 |

|   |   |   |   |   |   |    |   |   |
|---|---|---|---|---|---|----|---|---|
|   |   |   | V | H | 7 |    |   |   |
| U |   | 4 |   |   |   |    |   |   |
|   |   | X |   | N |   | C  |   | 9 |
|   |   |   |   |   |   | Ch |   |   |
| S |   | F |   | 5 |   | Y  |   |   |
|   |   |   | R |   | D |    |   |   |
|   | 7 | G |   |   |   |    |   |   |
|   |   |   |   | I |   |    | 2 |   |
|   |   |   | 2 |   |   |    |   | Z |

|                |                |                |                |                 |   |                |                |   |
|----------------|----------------|----------------|----------------|-----------------|---|----------------|----------------|---|
| 5              | 6 <sup>A</sup> | 8              | 7              | 1               | 3 | 4              | 2              | 9 |
| 3              | 4              | 9              | 8              | 6               | 2 | 5 <sup>S</sup> | 1              | 7 |
| 2              | 1              | 7              | 9              | 4               | 5 | 3              | 8              | 6 |
| 9              | 2 <sup>F</sup> | 4              | 6              | 3               | 7 | 8              | 5              | 1 |
| 6 <sup>J</sup> | 7 <sup>K</sup> | 1 <sup>L</sup> | 2              | 5               | 8 | 9              | 3 <sup>G</sup> | 4 |
| 8              | 5 <sup>M</sup> | 3 <sup>H</sup> | 1              | 9 <sup>Ch</sup> | 4 | 7              | 6 <sup>D</sup> | 2 |
| 4              | 8              | 2              | 5              | 7               | 1 | 6              | 9 <sup>N</sup> | 3 |
| 7              | 9              | 5              | 3              | 2               | 6 | 1 <sup>I</sup> | 4              | 8 |
| 1              | 3              | 6              | 4 <sup>E</sup> | 8               | 9 | 2              | 7              | 5 |

|                |                |                |                |                |                |   |                |   |
|----------------|----------------|----------------|----------------|----------------|----------------|---|----------------|---|
| 8              | 4              | 5              | 7 <sup>C</sup> | 9              | 1              | 2 | 6              | 3 |
| 1              | 9              | 6              | 5 <sup>M</sup> | 3              | 2              | 4 | 7              | 8 |
| 2              | 7 <sup>K</sup> | 3              | 8              | 6              | 4              | 9 | 1              | 5 |
| 6 <sup>O</sup> | 1 <sup>D</sup> | 2              | 9              | 7              | 5 <sup>T</sup> | 3 | 8              | 4 |
| 7              | 5              | 8              | 6 <sup>J</sup> | 4              | 3              | 1 | 9 <sup>P</sup> | 2 |
| 4              | 3              | 9              | 1              | 2              | 8              | 6 | 5              | 7 |
| 5              | 2              | 7              | 4              | 1 <sup>N</sup> | 9              | 8 | 3 <sup>R</sup> | 6 |
| 9              | 8              | 4              | 3              | 5 <sup>S</sup> | 6              | 7 | 2              | 1 |
| 3              | 6              | 1 <sup>L</sup> | 2              | 8              | 7 <sup>R</sup> | 5 | 4              | 9 |

|                |                |   |                |                |   |                |                |   |
|----------------|----------------|---|----------------|----------------|---|----------------|----------------|---|
| 5              | 6 <sup>O</sup> | 2 | 3              | 9              | 4 | 7              | 1              | 8 |
| 9              | 3              | 1 | 6 <sup>A</sup> | 5              | 7 | 4              | 8              | 2 |
| 7 <sup>U</sup> | 4              | 3 | 8 <sup>V</sup> | 2              | 1 | 9 <sup>P</sup> | 6 <sup>X</sup> | 5 |
| 3 <sup>Y</sup> | 9              | 8 | 2              | 7 <sup>R</sup> | 5 | 1              | 4              | 6 |
| 4 <sup>E</sup> | 5              | 6 | 1              | 8              | 9 | 2              | 3              | 7 |
| 2              | 1              | 7 | 4              | 6 <sup>D</sup> | 8 | 3 <sup>C</sup> | 5 <sup>B</sup> | 9 |
| 6              | 2              | 5 | 7              | 4              | 3 | 8              | 9              | 1 |
| 1              | 8              | 9 | 5 <sup>S</sup> | 3 <sup>Z</sup> | 2 | 6              | 7              | 4 |
| 8              | 7              | 4 | 9              | 1              | 6 | 5 <sup>T</sup> | 2              | 3 |

|                |   |                |                |                |                |                 |   |                |
|----------------|---|----------------|----------------|----------------|----------------|-----------------|---|----------------|
| 9              | 5 | 1              | 8 <sup>V</sup> | 3 <sup>H</sup> | 7              | 4               | 6 | 2              |
| 7 <sup>U</sup> | 2 | 4              | 6              | 9              | 5              | 1               | 3 | 8              |
| 3              | 8 | 6 <sup>X</sup> | 1              | 4 <sup>N</sup> | 2              | 7 <sup>C</sup>  | 9 | 5              |
| 5              | 3 | 8              | 4              | 2              | 6              | 9 <sup>Ch</sup> | 1 | 7              |
| 1 <sup>S</sup> | 6 | 2 <sup>F</sup> | 7              | 5              | 9              | 3 <sup>Y</sup>  | 8 | 4              |
| 4              | 9 | 7              | 3 <sup>R</sup> | 8              | 1 <sup>D</sup> | 5               | 2 | 6              |
| 2              | 7 | 3 <sup>G</sup> | 9              | 6              | 4              | 8               | 5 | 1              |
| 6              | 4 | 9              | 5              | 1 <sup>I</sup> | 8              | 2               | 7 | 3 <sup>Z</sup> |
| 8              | 1 | 5              | 2              | 7              | 3              | 6               | 4 | 9              |