## $巳$ <br> WPF SUDOKU/PUZZLE GRAND PRIX <br> 2015

# WPF suDOKU gP 2015 INSTRUCTION BOOKLET 

## PLAYOFFS

Puzzle authors:
Russia (Andrey Bogdanov), Italy (Giulia Franceschini), United Kingdom (Tom Collyer), Poland (Jan Mrozowski), Czech Republic (Jakub Hrazdira), Netherlands (Richard Stolk), Serbia (Nikola Zivanovic), India (Rohan Rao)

## General Playoff Format:

The Sudoku Grand Prix playoffs will consist of eight puzzles, to be solved in a fixed order. The puzzles contain a mix of classic sudoku and standard variations representative of the Sudoku GP series. Each host nation has contributed one sudoku to the playoffs.

The competitors will begin with a staggered start based on the total number of points earned in the qualifying rounds. Each point will convert to one second, with the start times as shown:

## Competitor:

Tiit Vunk (Estonia)
Jakub Ondroušek (Czech Republic)
Bastien Vial-Jaime (France)
Kota Morinishi (Japan)
Seungjae Kwak (Korea)
Timothy Doyle (France)
Rishi Puri (India)
Prasanna Seshadri (India)
Frédéric Stalder (Switzerland)
Vincent Bertrand (Belgium)

Points:
595.01
587.93
546.67
534.81
530.82
529.79
523.32
497.46
497.22
483.15

## Start Time (mm:ss):

00:00
00:07
00:48
01:00
01:04
01:05
01:12
01:38
01:38
01:52

When a competitor completes a sudoku, he can raise his hand to indicate to a proctor that he is done. The entire grid will then be judged over the next minute. After one minute, if the puzzle is correct, the proctor will indicate the competitor can begin the next puzzle. If the puzzle is incorrect, the proctor will return the incorrect puzzle to the competitor but will make no indication of where any mistake is in that grid. The competitor can resubmit a returned sudoku at any time, but another full one minute grading process will follow.

The playoffs will continue until 3 solvers have completed all eight puzzles. These solvers, in order of finish, will be the top 3 prize winners for this year's Sudoku Grand Prix.

## Puzzles:

1 - Classic Sudoku (Russia)
2 - Arrow Sudoku (Italy)
3 - Classic Sudoku (United Kingdom)
4 - Windoku (Poland)
5 - Classic Sudoku (Czech Republic)
6 - XV Sudoku (Netherlands)
7 - Classic Sudoku (Serbia)
8 - Palindrome Sudoku (India)

## 1,3,5,7 Classic Sudoku

Place a digit from 1 to 9 in each empty cell so that each digit appears exactly once in every row, column, and outlined $3 \times 3$ region.

Example

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

Solution

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

## 2 Arrow Sudoku

Apply Classic Sudoku rules. Additionally, some arrows are in the grid. The digit in the circle at the start of each arrow must be equal to the sum of the digits that appear along the path of the arrow. Digits can repeat within an arrow shape.

Example


Solution

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

## 4 Windoku

Apply Classic Sudoku rules. Additionally, digits do not repeat within the four shaded $3 \times 3$ regions.

Example

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

Solution

| 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 |

## 6 XV Sudoku

Apply Classic Sudoku rules. Additionally, if an X is given between two adjacent cells, the digits in those cells sum to 10 . If a V is given between two adjacent cells, the digits in those cells sum to 5 . If an X or V is not given, the two digits cannot sum to 5 or 10 .

Example


Solution

| 5 | 6 | 9 | 7 | 8 | 4 |  | v 3 | 3 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\times 3$ | 8 |  | 2 | 6 | 9 | 4 | 4 |  |
|  | 1 | 2 | 5 | 9 | 3 | 7 |  | 6 |  |
|  | v2 | 6 | 9 | 4 | 8 | 1 | 5 | 5 |  |
| 8 | 9 | 7 | 3 | 1 | 5 | 6 | 2 | 2 |  |
|  | $\checkmark 4$ | 5 | 6 | 7 | 2 | 8 | 9 | 9 |  |
| 6 | 7 | 1 | 4 | 3 | 9 | 5 |  | $8 \times$ |  |
| 2 | 5 | 4 | 8 | 6 | 7 | 3 |  |  |  |
|  | 8 |  |  |  |  |  |  |  |  |

## 8 Palindrome Sudoku

Apply Classic Sudoku rules. Additionally, the numbers formed by the digits on the gray lines are palindromes meaning they can be read equally in both directions.

Example

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

Solution

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

