

Part 3  
Difficult Sudokus  
90 minutes

- Non-consecutive Sudoku (75 points)
- 0-9 Sudoku (45 points)
- Japanese Sudoku (55 points)
- IsoSudoku (45 points)
- Mechanical Sudoku (55 points)
- Pandigital Sudoku (40 points)
- Toroidal Sudoku (85 points)
- Killer Sudoku (50 points)

Total : 450 points

# 1 Non-consecutive Sudoku (75 points)

Fill in the grid so that every row, every column, and every 3x3 region contains the digits 1 through 9. Two neighboring cells must not contain consecutive digits.

		1					8	5
	7							
	9							
						8		3
				7				
		9						
					4			
		4				7		

## 2 0-9 Sudoku (45 points)

Fill in the grid so that every row, every column, and every 3x3 region contains the digits 0 through 9. Some cells contain two digits.

		6		4			7	/
	9		/		5		6	8
3		5						
	/		3		0		4	
7				/				0
	3		8		9		/	
						2		7
8	6		9		/		3	
/	2			8		9		

### 3 Japanese Sudoku (55 points)

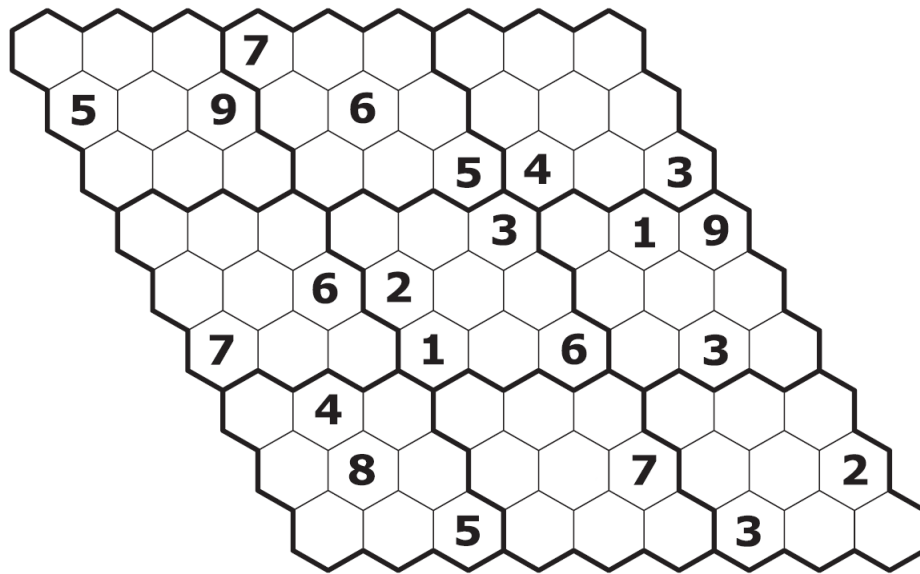
Fill in the grid so that every row, every column, and every 3x3 region contains the digits 1 through 9. The digits written in Japanese must use the letters in the cell.

R				C	I		N	
	Y		S		A		K	
U			N		H		G	C
H	A			Y		K		R
	S		I			A	C	
	O	I	C	O		H	S	
C	A	O	K				H	
	K	U			C	G	O	
	G		U					I

1: ICHI	2: NI	3: SAN
4: YON	5: GO	6: ROKU
7: NANA	8: HACHI	9: KYU

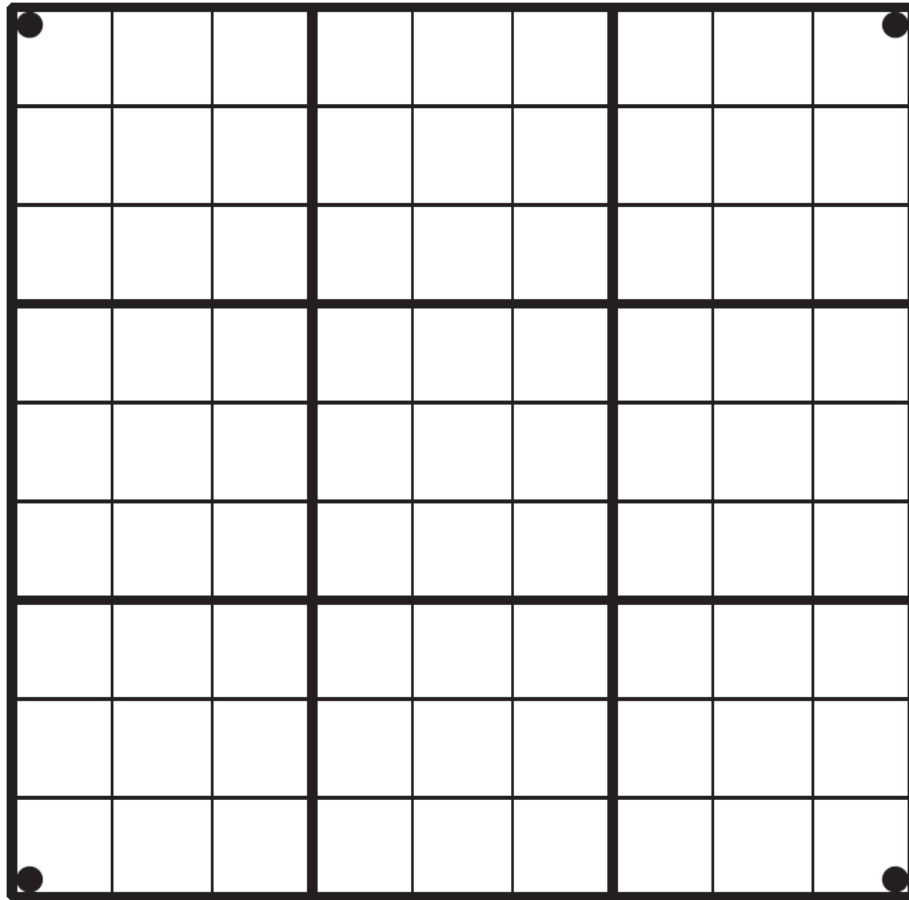
#### 4 IsoSudoku (45 points)

Fill in the grids so that every row, 9-cell diagonal, and 3x3 region contains the digits 1 through 9. In the shorter diagonals all digits must be different.



## 5 Mechanical Sudoku (55 points)

First, place the given pieces into the grid without overlapping. Then fill in the grid, so that every column, every row and every  $3 \times 3$  region contains the digits 1 through 9. The four corners of the final grid have been marked with dots on the pieces, too.



## 6 Pandigital Sudoku (40 points)

Fill in the square with digits from 1 to 9 so that in each row, in each column, and in each 3x3 region all digits are different. Some rows and columns form correct arithmetic expressions reading from left to right or from top to bottom.

2	3		+			6	=				
		1				3				7	
+						+					
5					8					2	
	2				9			5	4		
		7				5		3			
=						=					
									2		
			+		7		=				



## 8 Killer Sudoku (50 points)

Fill in the grid so that every row, every column, and every outlined region contains the digits 1 through 9. The sum of the digits within each dotted sub-region is equal to the specified number. Digits in a sub-region are different from each other.

10	19		17	10	14	18	6	
							13	12
6	12		20					
				21				6
5		13	11	16			22	
10	11			17	16			
		13	5			6		20
16	5							
		13			7		15	