# Example Sudoku Puzzles

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A Sudoku puzzle consists of a 9 by 9 array of squares, some of which have numbers in them, the numbers ranging from 1 through 9. The problem is to fill in all the squares such that each row, column, and 3 by 3 box includes the numbers 1 through 9 with no repetitions.

This is a collection of some 54 Sudoku puzzles which I have culled from various places. The sources include, among others: the *Sudoku Solver* [SSBL] website (labelled SE, SM, SH and SVH), *The Daily Telegraph* [Mep05] (labelled TG, TM, and TT), *The Seattle Times* (labelled ST), and some automatically generated by the createsudoku package [Wil06] (labelled CS).

You can try solving them yourself and/or get LaTeX to do it for you. The solvesudoku package [Wil06] is able to solve most, but not all of the puzzles. Other LaTeX packages may do better or worse.

The puzzles are presented in approximately increasing order of difficulty. Each source, though, has its own set of categories which don't necessarily agree with each other (and sometimes not within one source). I have included an indication of the difficulty as stated by the relevant source.

The parameters for the puzzles created via createsudoku are given in the table.

Number	Seed	initialelimination
CS1	1505263462	\elimcrossandexandnines
CS2	1495929734	\elimcrossandex
CS3	1487762722	\elimcrossandexandnines
CS4	1508763610	\elimcrossandex
CS5	839068723	\elimseventeen
CS6	833235143	\elimcrossandexandnines

			SE	E5 (eas)	(y)			
	2				5	8	6	3
5	6		2		3		9	
	3				7	2	5	1
		9	7	5				
		6			4	7		9
	7			2	8	6		
6		5	8				7	
8					1			6
3		7		6			4	

			SE	10 (ea	sy)			
		6		4	9	7		
	8	2		1		6		
7	9			8		1	4	5
6	4	9		5		2	7	
		7		6			5	
	3			7	2		9	6
	2					8	1	
	7			2	8			
						5		7

			SE	15 (ea	sy)			
4		6	7		3	9		2
		1	6		8	4		
	7				4			1
5				4		2	1	
	2						6	
	6	8		7				9
6			5				9	
		2	4		9	3		
9		5	3		1	7		4

			SE	20 (ea	sy)			
3	6		9			5		
		5	4		8		2	
					7	8		9
2					3		6	8
	8	3		9				
	4		7			2		3
6		7	1			3		
1	3		8		5	9		2
		9		7			5	6

SE25	(easy)
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				25 (ea	- J /			
				6	3		5	
6		5		1		8	3	9
		1				2		
8	2	3				7		
	5				7			
	6	4		9				1
4		2	5	7	9	6		3
	9		1		6	5		8
	1				8	9		7

SE30 (easy)

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

			TG	5  (gen)	tle)			
	6		1		9		8	
	1	9				7	4	
2								1
		7	9		2	6		
	3						2	
		1	4		3	5		
1								5
	7	5				2	3	

TG10 (gentle) 

TG15 (gentle)

			1	(8*	8			
	5	7				1	8	
9	8						2	6
		6	7	4	1	9		
		4	2	5	3	6		
7	2						9	4
	1	9				7	3	
			3		9			

TG20 (gentle)

				(801				
			7		9			
	8		3		6		5	
7		9				6		8
		4	2		1	8		
	6						4	
		3	5		4	1		
9		2				5		7
	4		8		7		1	
			1		2			

			$TG_2$	25 (ger	ntle)			
7			4			5		
	6	1			5		7	
	9		7		1			6
8				2	7			
			3	4				1
1			8		2		3	
	7		1			6	2	
		3			9			7

			TG	30 (gei	ntle)			
3	7		4					
9					6	1		4
				2	3			
	4		1			9		
	1	2				7	9	
		5			7		4	
			3	6				
4		3	2					6
					9		5	7

ST1226	(1	star)
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9				20 (1	4		3	1
7	4	5	2					
	8			6	7	4		
	2	6		4				5
5			6		9			8
4				2		3	7	
		7	5	9			6	
					1	8	2	3
2	1		3					7

ST0206 (1 star)

1	7		4	206 (1				5
		2		1			9	6
8	4	9			3			
				7	1	8		
	2	5				6	7	
		8	2	6				
			5			7	4	9
5	3			9		1		
6				4	8		2	3

			ST02	213 (1	star)			
	9	4		2				7
	3	6				1		5
2	8		3	5				
		9	2				5	
6		2	1		4	9		8
	7				6	3		
				1	3		4	6
1		5				7	8	
8				4		2	9	

	CS1 (level 2)											
	4	6			7	3	1					
2		3	6		4							
8	7		3		1		4	5				
6	5	7				4	2	3				
	8	1				7	5	6				
4	3		8		6			1				
7			2			5		4				
		2	5		3	8	6					

CS2 (level 2) 

CS3 (level 2) 

SM5 (medium)

		7	6	(	,,,,,,	2	4	
	4	6					9	
9	2			8	5			
8					2	9		
		3				4		
		4	9					6
			7	3			2	4
	5					8	6	
	3	2			6	7		

SM10 (medium)

				7 (11100				$\overline{}$
		5	7		8	2		
4								6
	7			6			8	
5	2		9		4		3	1
8	6		1		7		5	4
	9			3			6	
7								5
		2	4		6	1		

12 MODERATE

			SM20	) (med	lium)			
		3	4		2		9	7
		4					2	
	7		6					8
				9				
	3	8				4	7	
				1				
4					5		1	
	5					6		
7	2		3		1	9		

SM25	(medium)
------	----------

			4	) (mec	7	9		
7		6			•	2		
		5			8	3		6
5	6			2	9	8		
		8			1			
	3		7					5
							3	8
				9	3			
	4		5					

SM30 (medium)

		5	8	) (IIIcc	Í			
				7	9			
		4	6	1			7	
	5		3					4
	2	3				6	5	
9					8		3	
	3			5	7	2		
			4	2				
					6	1		

MODERATE MODERATE

TM35 (moderate) 

TM40 (moderate) 

TM45 (moderate)

	1		2	(inod	8		3	
		8	7		9	4		
9								6
		9		8		5		
6								3
		3		5		6		
2								7
		7	3		5	1		
	6		4		7		9	

TM50 (moderate)

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

16 MODERATE

TM55 (moderate) 

#### TM60 (moderate)

ST0914 (2 stars)

	6		2	9	Í		8	
		8					3	
	1			7	8			
	2	1	7		9			8
6								3
7			6		4	9	2	
			1	2			4	
	7					3		
	5			8	6		7	

ST0207 (2 stars)

				01 (2 )				
							4	6
5			8		9		7	3
			6			15		1
	5	9	2			1		
6				1				7
		3			7	8	5	
2		5			6			
1	9		7		5			8
3	4							

18 MODERATE

CS4 (level 4) 

			CS!	i (leve	14)			
			6			9	7	8
		4	9	8				2
	9	7		2	1			
		8	4		2	7		
	7						2	3
3				6				9
7		6			9	5		
			8	7				1
	2			4		8	6	7

			CS6	i (leve	14)			
	1	2	6		4		7	
6		5			7	3		2
	7		3		1		4	
7	5	6				4	2	3
1	8							6
	3		8		6			1
2		1						7
		7	2				3	

SH5 (hard) 

SH10 (hard) 

			SH	15 (ha	rd)			
2			9					
	7			6			5	9
			4				6	1
7		1			2			4
				4				
8			1			9		6
1	2				3			
5	3			2			7	
					9			2

			SH	20 (ha	rd)			
	6		2				3	
9				3				1
				9		2		
1			7					
	3	2				4	6	
					4			2
		7		4				
2				5				8
	4				6		5	

		ı	SH	25 (ha	rd)			
4					1			8
		7		3	8	4	5	
		2	4				1	
2	8		9					
		4				5		
					4		8	6
	4				9	2		
	2	1	3	4		8		
9			6					1

SH30 (hard) 

TT100	(tough)
1 1 1 1 0 0	( tough)

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

TT105 (tough)

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

TT110 (tough)

	7	9		1	0 /			
	4		5					7
1			6					
9	3	6	8			1		
		4				9		
		7			4	6	3	2
					8			1
5			·		6		9	
				4		8	2	

TT115 (tough)

4	3	2		5	4611)			
					3			
7	5		1					
		5		8	2	3		
	6		5		1		4	
		1	9	3		2		
					6		5	8
			3					
				2		9	3	4

TT120	(tough)
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				(				
		8		1		7		
	4		6	7		8		
		2			4	6	1	
	9					1		8
2		1					9	
	7	5	9			4		
		4		5	2		6	
		9		3		5		

ST1130 (3 stars)

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

ST1207 (3 stars) 

ST1209 (5 stars)

			0114	09 (5 :	starsj			
			6					
	4			8			5	
	5	1	9			2		8
		7	2	9				3
	9						1	
4				6	7	9		
6		8			9	5	7	
	7			2			9	
					4			

ST1221 (3 stars)

			~ + + =	21 (3)	<i>y</i> (42.5)			
					3	9	2	
4					5		7	
2	9		4				6	3
		4					5	
			2		1			
	5					3		
7	4				2		9	6
	6		5					7
	2	1	7					

ST1228 (3 stars)

6			1	,	5		
					3	7	9
	9	4	2				
		5			8		3
	4					9	
9		7			6		
				6	2	3	
1	3	8					
		6		8			7

ST0126 (4 stars)

		3	6	20 (4 )	,		7	
1				3	5	2		
		4						
		6					2	9
7								4
3	2					5		
						1		
		8	2	4				5
	4				9	3		

ST0127 (5 stars)

2	5		8	27 (5 )	,			
				9		8		2
9			4		7			
6	4						9	
	9		1		3		4	
	7						2	1
			5		4			7
7		6		8				
					1		8	3

ST0204 (	6 stars
----------	---------

				04 (0 )	, , ,			
	5			2		8		6
					6			3
	6			1	3	2		
	7					9	6	
4								1
	1	6					3	
		7	2	3			8	
6			7					
2		4		9			7	

ST0208 (3 stars)

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

			ST02	09 (4 :	stars)			
		9						
	5	2	3		1			
8		1	2		6			
		4					1	
9	7			2			8	4
	2					9		
			8		4	1		5
			6		5	2	4	
						8		

S									
		SE	5 (ea	sy s	oluti	ion)			
7	2	4	1	9	5	8	6	3	
5	6	1	2	8	3	4	9	7	
9	3	8	6	4	7	2	5	1	
1	8	9	7	5	6	3	2	4	
2	5	6	3	1	4	7	8	9	
4	7	3	9	2	8	6	1	5	
6	4	5	8	3	9	1	7	2	
8	9	2	4	7	1	5	3	6	
3	1	7	5	6	2	9	4	8	
SE15 (easy solution)									
4	5	6	7	1	3	9	8	2	
2	3	1	6	9	8	4	7	5	
8	7	9	2	5	4	6	3	1	
5	9	7	8	4	6	2	1	3	
1	2	4	9	3	5	8	6	7	
3	6	8	1	7	2	5	4	9	
6	4	3	5	2	7	1	9	8	
7	1	2	4	8	9	3	5	6	
9	8	5	3	6	1	7	2	4	
		SE2	5 <u>(e</u> a	asy s	solut	ion)			
2	7	8	9	6	3	1	5	4	
6	4	5	7	1	2	8	3	9	
9	3	1	8	5	4	2	7	6	
8	2	3	6	4	1	7	9	5	
1	-	0	9	0	7	4	c	2	

		SE2	5 (ea	asy s	solut	ion)		
2	7	8	9	6	3	1	5	4
6	4	5	7	1	2	8	3	9
9	3	1	8	5	4	2	7	6
8	2	3	6	4	1	7	9	5
1	5	9	3	8	7	4	6	2
7	6	4	2	9	5	3	8	1
4	8	2	5	7	9	6	1	3
3	9	7	1	2	6	5	4	8
5	1	6	4	3	8	9	2	7

	r	$\Gamma G5$	(ge	ntle	solu	tion	)	
7	6	4	1	5	9	3	8	2
5	1	9	2	3	8	7	4	6
8	2	3	6	7	4	9	5	1
4	5	7	9	8	2	6	1	3
9	3	6	7	1	5	4	2	8
2	8	1	4	6	3	5	9	7
1	4	2	3	9	7	8	6	5
6	7	5	8	4	1	2	3	9
3	9	8	5	2	6	1	7	4

	1	SE1	<u> </u>					
1	5	6	3	4	9	7	8	2
4	8	2	7	1	5	6	3	9
7	9	3	2	8	6	1	4	5
6	4	9	8	5	3	2	7	1
2	1	7	9	6	4	3	5	8
8	3	5	1	7	2	4	9	6
5	2	4	6	9	7	8	1	3
3	7	1	5	2	8	9	6	4
9	6	8	4	3	1	5	2	7
SE20 (easy solution)								
3	6	8	9	1	2	5	4	7
9	7	5	4	3	8	6	2	1
4	1	2	6	5	7	8	3	9
2	9	1	5	4	3	7	6	8
7	8	3	2	9	6	4	1	4
5	4	6	7	8	1	2	9	3
6	5	7	1	2	9	3	8	4
1	3	4	8	6	5	9	7	2
8	2	9	3	7	4	1	5	6
		SE3	0 (ea	asy s	solut	ion)		
4	3	6	1	2	9	8	7	5
1	2	8	7	5	3	4	9	6
7	5	9	8	6	4	3	2	1
5	1	4	2	8	7	6	3	9
6	7	3	5	9	1	2	8	4
8	9	2	3	4	6	5	1	7
9	4	1	6	3	8	7	5	2
3	6	5	9	7	2	1	4	8
2	8	7	4	1	5	9	6	3
	Т	`G1(	) (ge	entle	solu	ition	1)	
3	8	2	1	9	6	5	7	4
4	9	1	5	7	3	8	6	2
5	6	7	2	4	8	1	3	9
2	7	8	6	1	4	3	9	5
9	4	6	3	8	5	2	1	7
1	3	5	7	2	9	4	8	6

 

TC1	5	(gentle	colu	tion
1 ( 7 1	. )	rgennie	SOIL	LIOIL

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

### TG25 (gentle solution)

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

#### ST1226 (1 star solution)

	~ .	1122	-0 (-	. Dua.		auto.	11)	
9	6	2	8	5	4	7	3	1
7	4	5	2	1	3	6	8	9
1	8	3	9	6	7	4	5	2
3	2	6	7	4	8	9	1	5
5	7	1	6	3	9	2	4	8
4	9	8	1	2	5	3	7	6
8	3	7	5	9	2	1	6	4
6	5	9	4	7	1	8	2	3
2	1	4	3	8	6	5	9	7

#### ST0123 (1 star solution)

	Ο.	1012	10 (1	. Bua.	1 501	uuio.	11)	
5	9	4	6	2	1	8	3	7
7	3	6	4	8	9	1	2	5
2	8	1	3	5	7	4	6	9
3	1	9	2	7	8	6	5	4
6	5	2	1	3	4	9	7	8
4	7	8	5	9	6	3	1	2
9	2	7	8	1	3	5	4	6
1	4	5	9	6	2	7	8	3
8	6	3	7	4	5	2	9	1

### TG20 (gentle solution)

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

### TG30 (gentle solution)

			(0				/	
3	7	6	4	1	8	5	2	9
9	2	8	7	5	6	1	3	4
1	5	4	9	2	3	6	7	8
7	4	9	1	3	2	8	6	5
6	1	2	5	8	4	7	9	3
8	3	5	6	9	7	2	4	1
5	9	7	3	6	1	4	8	2
4	8	3	2	7	5	9	1	6
2	6	1	8	4	9	3	5	7

## ST0206 (1 star solution)

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

## CS1 (level 2 solution)

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

CS2 (level 2 solution	CS2	(level	2	sol	lution	,
-----------------------	-----	--------	---	-----	--------	---

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

### SM5 (medium solution)

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

#### SM15 (medium solution)

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

### SM25 (medium solution)

			(					
3	8	2	4	6	7	9	5	1
7	1	6	9	3	5	2	8	4
4	9	5	2	1	8	3	7	6
5	6	4	3	2	9	8	1	7
2	7	8	6	5	1	4	9	3
1	3	9	7	8	4	6	2	5
9	2	7	1	4	6	5	3	8
6	5	1	8	9	3	7	4	2
8	4	3	5	7	2	1	6	9

### CS3 (level 2 solution)

	4	5	6	8	9	7	1	2	3
	1	2	3	5	6	4	7	8	9
	7	8	9	2	3	1	4	5	6
	2	3	4	6	7	5	8	9	1
	5	6	7	9	1	8	2	3	4
	8	9	1	3	4	2	5	6	7
I	3	4	5	7	8	6	9	1	2
	9	1	2	4	5	3	6	7	8
	6	7	8	1	2	9	3	4	5

### SM10 (medium solution)

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

#### SM20 (medium solution)

	8	6	3	4	5	2	1	9	7
	5	9	4	1	7	8	3	2	6
	1	7	2	6	3	9	5	4	8
	6	1	7	8	9	4	2	3	5
	9	3	8	5	2	6	4	7	1
	2	3	4	7	1	3	8	6	9
ſ	4	8	9	2	6	5	7	1	3
	3	5	1	9	4	7	6	8	2
	7	2	6	3	8	1	9	5	4

### SM30 (medium solution)

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

TM35 (moderate solution	TM35	( $moderate$	solution
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5	9	1	3	2	8	7	4	6
6	7	4	9	5	1	8	2	3
2	3	8	6	7	4	1	9	5
3	5	6	2	9	7	4	8	1
4	2	7	1	8	5	3	6	9
8	1	9	4	6	3	2	5	7
9	8	5	7	3	2	6	1	4
7	4	2	5	1	6	9	3	8
1	6	3	8	4	9	5	7	2

#### TM45 (moderate solution)

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

#### TM55 (moderate solution)

			\				~/	
7	3	1	9	4	6	5	2	8
2	4	5	1	3	8	6	7	9
9	6	8	5	7	2	1	4	3
6	1	4	7	2	9	3	8	5
5	7	2	8	1	3	9	6	4
8	9	3	4	6	5	7	1	2
1	5	9	6	8	4	2	3	7
4	2	6	3	5	7	8	9	1
3	8	7	2	9	1	4	5	6

#### ST0914 (2 star solution)

510514 (2 Stat Solution)									
5	6	7	2	9	3	1	8	4	
2	9	8	4	6	1	5	3	7	
4	1	3	5	7	8	6	9	2	
3	2	1	7	5	9	4	6	8	
6	4	9	8	1	2	7	5	3	
7	8	5	6	3	4	9	2	1	
9	3	6	1	2	7	8	4	5	
8	7	2	9	4	5	3	1	6	
1	5	4	3	8	6	2	7	9	

#### TM40 (moderate solution)

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

#### TM50 (moderate solution)

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

## TM60 (moderate solution)

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

#### ST0207 (2 star solution)

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

CS4	(level	8	solution
CDT		$\circ$	SOLUTION

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

### CS6 (level 4 solution)

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

#### SH10 (hard solution)

DITTO (Hara Boration)									
4	3	7	9	2	1	8	6	5	
1	5	6	8	3	7	4	9	2	
2	8	9	4	5	6	1	3	7	
5	9	8	1	6	3	2	7	4	
3	7	4	2	9	5	6	8	1	
6	2	1	7	4	8	9	5	3	
7	1	3	6	8	2	5	4	9	
8	4	5	3	1	9	7	2	6	
9	6	2	5	7	4	3	1	8	

## SH20 (hard solution)

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

#### CS5 (level 8 solution)

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

### SH5 (hard solution)

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

### SH15 (hard solution)

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

### SH25 (hard solution)

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

CH3U	(hord	solution	'n
5 H 3U	unard	SOULTION	a

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

### TT105 (tough solution)

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

#### TT115 (tough solution)

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

## ST1130 (3 star solution)

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

## TT100 (tough solution)

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

### TT110 (tough solution)

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

#### TT120 (tough solution)

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

## ST1207 (3 star solution)

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

ST1209	(5	star	so	lution	'n
011209	1 .)	Stat	50	пиыю	

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

#### ST1228 (3 star solution)

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

#### ST0127 (5 star solution)

	,	1012	. (5	D CC.		artio.	)	
2	5	3	8	1	6	4	7	9
4	6	7	3	9	5	8	1	2
9	1	8	4	2	7	5	3	6
6	4	1	7	5	2	3	9	8
8	9	2	1	6	3	7	4	5
3	7	5	9	4	8	6	2	1
1	8	9	5	3	4	2	6	7
7	3	6	2	8	9	1	5	4
5	2	4	6	7	1	9	8	3

#### ST0208 (3 star solution)

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

### ST1221 (3 star solution)

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

#### ST0126 (4 star solution)

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

### ST0204 (6 star solution)

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

#### ST0209 (4 star solution)

6	3	9	5	8	7	4	2	1
7	5	2	3	4	1	6	9	8
8	4	1	2	9	6	7	5	3
5	8	4	7	6	9	3	1	2
9	7	6	1	2	3	5	8	4
1	2	3	4	15	8	9	7	6
2	9	7	8	3	4	1	6	5
3	1	8	6	7	5	2	4	9
4	6	5	9	1	2	8	3	7

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