#1

## Logic Puzzles

## Sudoku

A Sudoku puzzle consists of a 9x9 grid containing given clues in various places. The object is to fill all empty squares so that the numbers appear exactly once in each row, column, and 3x3 box.

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

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

#2

## **Colored Logic Art**

Each puzzle consists of a blank grid with colored clues on the left of each row and the top of each column. The object is to reveal a picture by coloring blocks in each row and column so that their length, color, and sequence correspond to the clues. If there are adjacent same-color blocks in a row or column, it means there is AT LEAST

one empty square between them. (There may be more than one empty square sometimes!)

					1 2	1 2 2 2	1 1	2	2	1 1 2 2	2 4 2 1	3 3 1 2	5	3
				4										
			1	4										
1	1	1	1	3										
	1	1	4	2										
		1	3	1										
			1	2										
			2	4										
		3	4	1										
		1	2	2										
			1	4										

For instance, look at the 8<sup>th</sup> column in the first puzzle. There is a black block of 3, a tan block of 3, a blue block of 1, and a blue block of 2. 3+3+1+2=9. But there must be at least one empty square between the blue blocks, so 9+1=10, and you now know what color each block should be in that column. You can use a small "·" to identify empty squares. Can you use logic to figure out where the rest of the colored and empty squares must be?

Hint: A lot of times, identifying the empty squares is as helpful as identifying the colored ones!

15 x 15

For those who want an extra challenge!

							ı									4				
													1	2		1				
													1	2		1				
											2	5	3	2	2	2		4	4	
											2	1	1	1	2	3		3	2	
						2	1	5	4	1	2	5	1	1	3	1	8	1	1	3
						8	6	2	4	3	4	1	1	1	1	2	1	1	2	4
						2	1	2	2	6	2	1	1	2	3	2	1	2	2	2
						1	4	1	1	2	2	2	2	2	2	1	4	1	1	2
		2	4	2	5															
		1	2	4	4															
			2	2	5															
			8	2	4															
			9	2	1															
		5	2	4	2															
	4	2	3	2	4															
		3	2	2	4															
	2	3	2	5	1															
	1	4	2	5	1															
	1	2	2	2	2															$\vdash$
2																				$\vdash \vdash$
2	2	2	2	2	1															
			4	4	4															
2	1	6	2	1	1															
	1	2	8	2	2															

Sudoku and Logic Art are different types of puzzles, but both require logic to solve. Did you find one type easier than the other? What do you think made it easier? Can you describe one of your methods or a strategy that was particularly helpful to you in solving a puzzle? Have fun!

Source for all logic puzzles: www.conceptispuzzles.com