





## LOOP THE LOOPS

Draw a single closed loop that connects neighboring dots horizontally or vertically. The loop cannot intersect or overlap with itself. Some numbers appear in the grid as clues; as in a Slitherlink puzzle, a digit indicates exactly how many of its four edges are used by the loop. Some circles (either white or black) also appear in the grid as clues; as in a Masyu puzzle, the loop must pass through all of these circles. When passing through a black circle, the path must make a 90 degree turn and extend at least two dots in both directions. When passing through a white circle, the path must go straight and must turn at least one of the adjacent dots.

*Answer key 1: For each marked row, enter the number of cells of the longest horizontally connected group of cells inside the loop in that row, starting at the top and continuing to the bottom.*

*Answer key 2: For each marked column, enter the number of cells of the longest vertically connected group of cells inside the loop in that column, starting at the left and continuing to the right.*



**TAPA**

Paint some cells black to create a continuous wall. Number(s) in a cell indicate the length of black cell blocks on its neighbouring cells. If there is more than one number in a cell, there must be at least one white cell between the black cell blocks. No 2X2 square can have all black cells. There is no wall segment on cells containing numbers.

Answer key 1 : Enter the lengths of longest horizontal shaded cell block for the marked rows  
 Answer key 2 : Enter the lengths of longest vertical shaded cell block for the marked columns

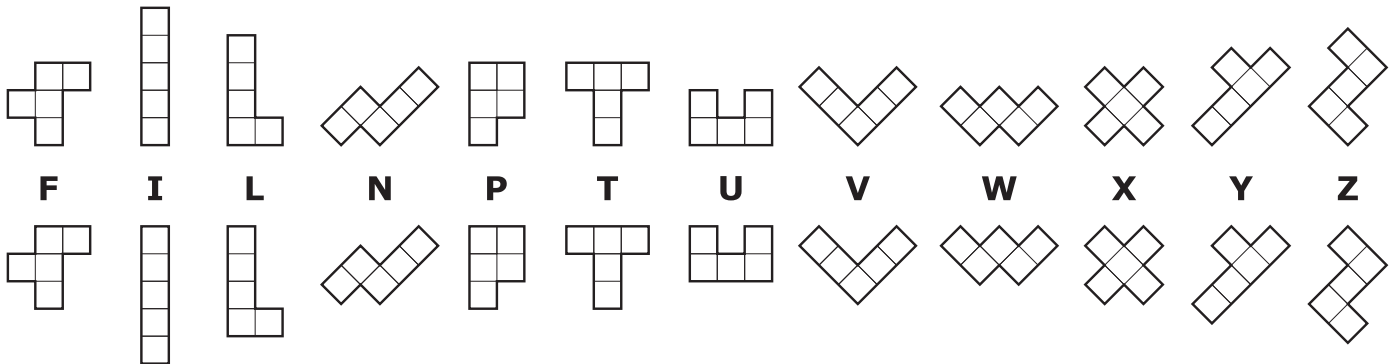
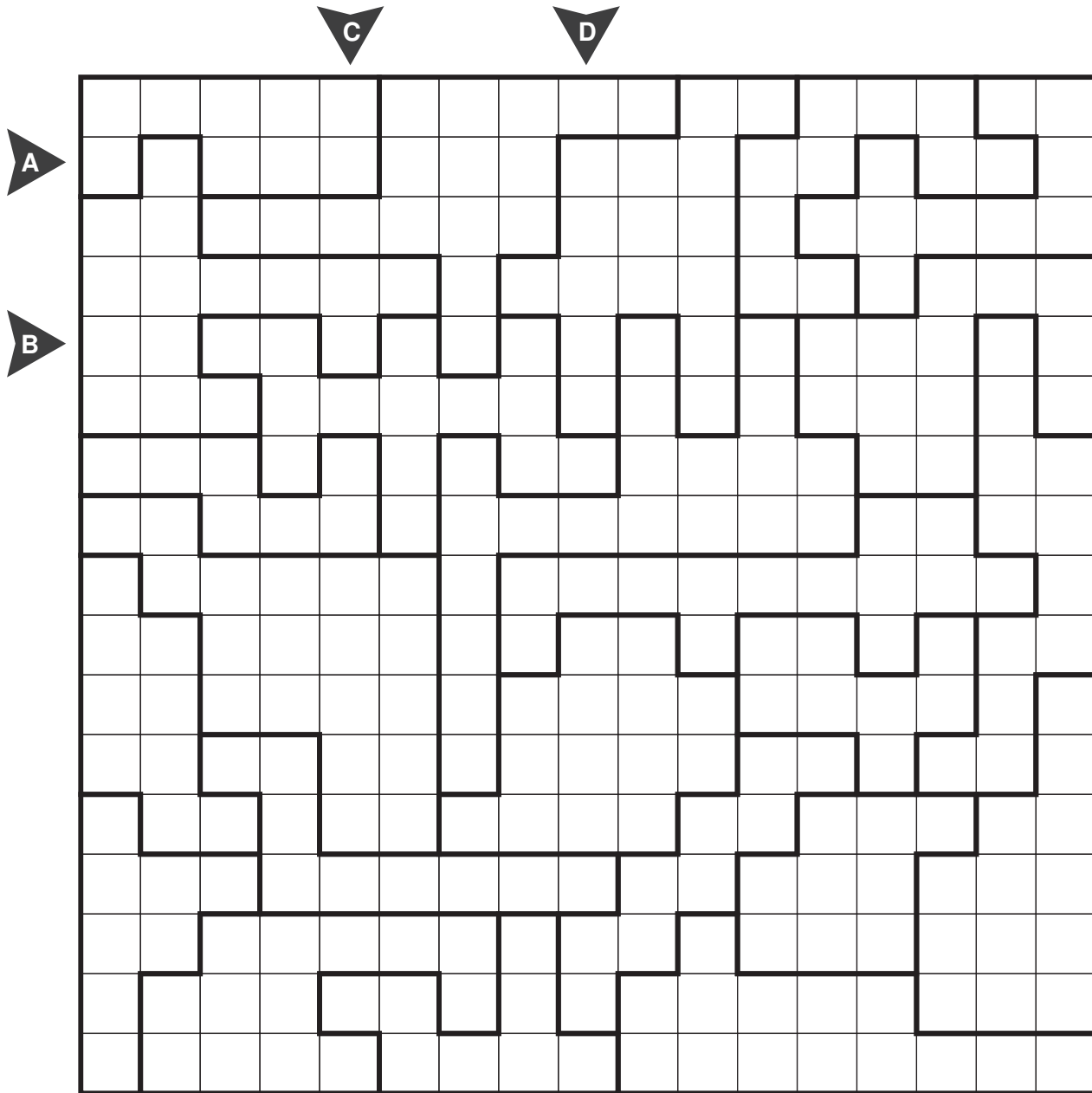
					4					1 1								
	2 3											1				$\begin{matrix} 1 & 1 \\ 3 \end{matrix}$		1 1
			2 3				$\begin{matrix} 1 & 1 \\ 2 \end{matrix}$		6		3							
	$\begin{matrix} 1 & 1 \\ 3 \end{matrix}$														2 3			
									$\begin{matrix} 1 & 1 \\ 3 \end{matrix}$									
			1 4					2 4				$\begin{matrix} 1 & 1 \\ 1 \end{matrix}$		1 2		1 3		
			1 3							1 3								
						2 3							$\begin{matrix} 1 & 1 \\ 2 \end{matrix}$					
	2 3				$\begin{matrix} 1 & 1 \\ 3 \end{matrix}$		1 4				$\begin{matrix} 1 & 1 \\ 1 \end{matrix}$							2
					1 2		1 2	2		1 2	$\begin{matrix} 1 & 1 \\ 2 \end{matrix}$		2 2					
					$\begin{matrix} 1 & 1 \\ 1 \end{matrix}$		1 3		4		2 3		1 3					2
	2 2		$\begin{matrix} 1 & 1 \\ 2 \end{matrix}$		3	1 3		1 3			2 4		2 3		1 2			
					1 3				2 2		1 2			2 3		$\begin{matrix} 1 & 1 \\ 2 \end{matrix}$		
2																		
			5			$\begin{matrix} 1 & 1 \\ 2 \end{matrix}$											1 2	
1									2 3						3			
			2							$\begin{matrix} 1 & 1 \\ 2 \end{matrix}$			2 2					
																		1 2
						1			2		2							



# PENTOMINO AREAS

Place two complete pentomino sets, one in each of the outlined area. Pieces can be rotated and / or reflected, but they cannot touch each other even at a point.

Answer key: Enter the first three pentominos seen from the marked directions. (– if not enough pentominos)





## BLACK AND WHITE LOOP

Draw a loop which passes all cells exactly once. Between two circles with same colour the loop cannot turn. Between 2 circles with different colours, the loop must turn exactly once.

Answer key : Starting with A and traveling clockwise around the loop, enter the order the letters are visited  
For the example, answer key is ALOOP

○			○		○			⊙		○					⊙
			○			○			⊙		○	●		●	
		○			●			●		●	○		○		○
	⊙			●				○				○			●
	●			⊙			○			○				○	
		○	○			●			○			⊙			⊙
○	○	○		●	○			○				●		●	
		○						○	●		○				
	○			○		○	●			●	○	○			○
	●				●	○					●				●
⊙			○	⊙		●		○						○	
		●				○		○	⊙	●			○		●
	○		○		●		○		○		⊙		●		
				○		○			○	○	●		○	○	
		○			●			●			●			⊙	●
	⊙			●		○	●		○		○	○			
●		○		●			○			⊙		○		○	
	○		○		○				●						○



### STAR BATTLE SMALL REGIONS

Mark several cells with stars so that there are 3 stars in each row and column. Stars may not touch each other, not even diagonally. Every outlined region contains exactly one star.  
(The example uses 2 stars per row and column)

*Answer key: Starting from top to bottom, for each marked row, enter the column containing the 2<sup>nd</sup> star in that row.*

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
▶																			
▶																			
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# SAMURAI SUDOKU

Place the digits 1 through 9 into the empty cells in the grids so that each digit appears exactly once in each of the rows, columns, and bold outlined regions. In Odd Sudoku, shaded cells have odd digits (13579) only. In Extra Region Sudoku, each digit also appears exactly once in each group of shaded cells. In Diagonal Sudoku, each digit also appears exactly once in each of the marked diagonals. Some 3X3 regions are common to two grids.

Answer key: Enter the digits (including the givens) along the marked rows.

**A**

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

Odd

**B**

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

Extra Region

**C**

				8	3		
			9		4		
			5	1			

Diagonal

**E**

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

Irregular

**D**

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





