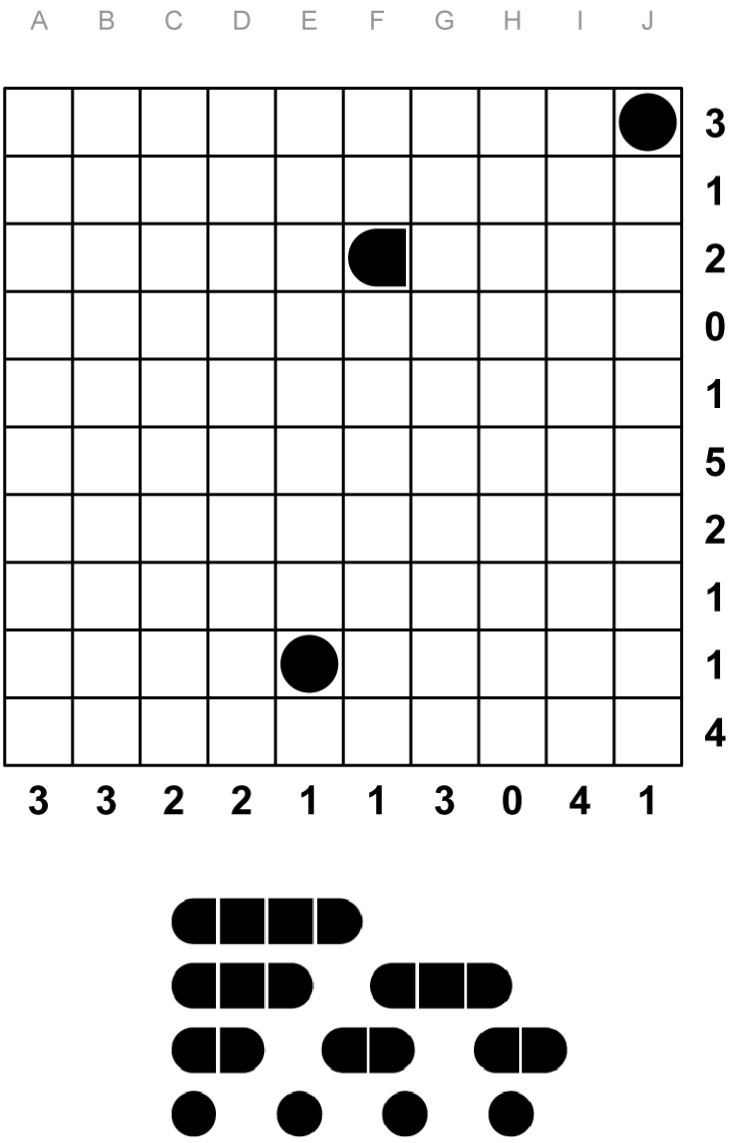
1. Battleships (Moshe Rubin) - 5 points

Locate the position of the 10-ship fleet in the grid. Each segment of a ship occupies a single cell. Ships are oriented either horizontally or vertically, and do not touch each other, not even diagonally. The numbers on the right and bottom edges of the grid reveal the total number of ship segments that appear in the corresponding row or column.

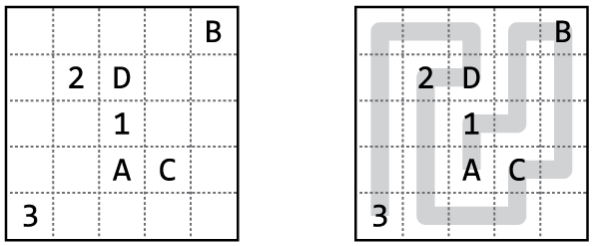


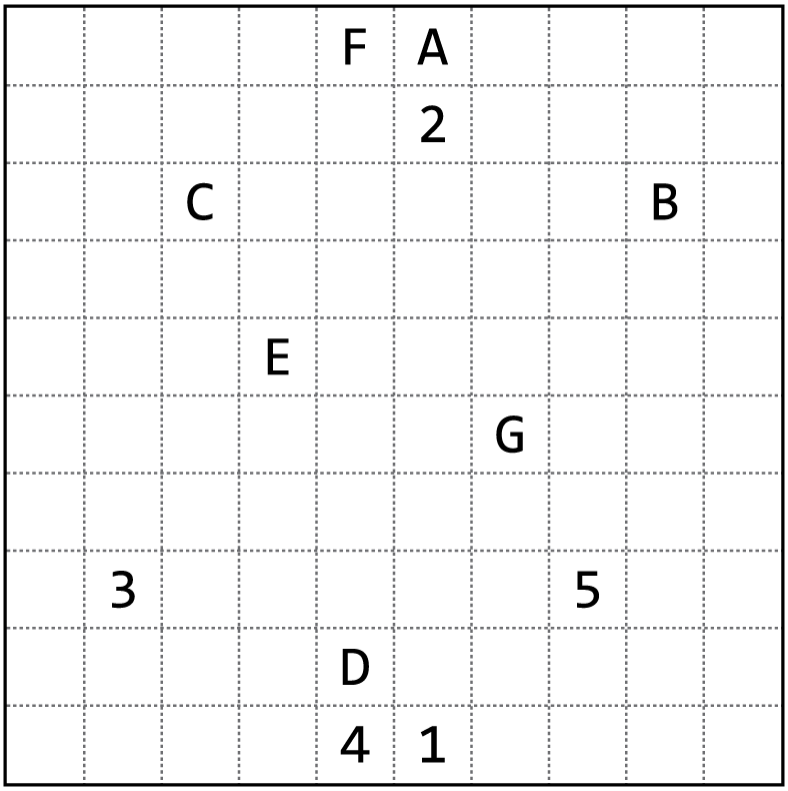
Answer: For each row, from top to bottom, enter the letter corresponding to the first column from the left where a ship segment appears. Enter "-" for an empty row.

2. Character Development (Cihan Altay) - 5 points

Find a single, non-intersecting path that visits every letter in alphabetical order, and visits each number in numerical order, possibly interleaved. The path connects adjacent cells horizontally or vertically, and must start and finish at a non-blank square.

Ex.



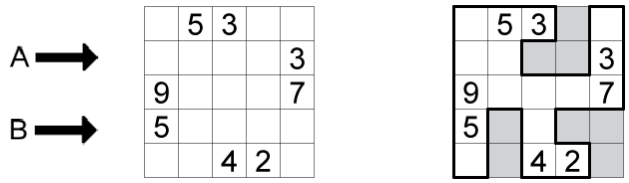


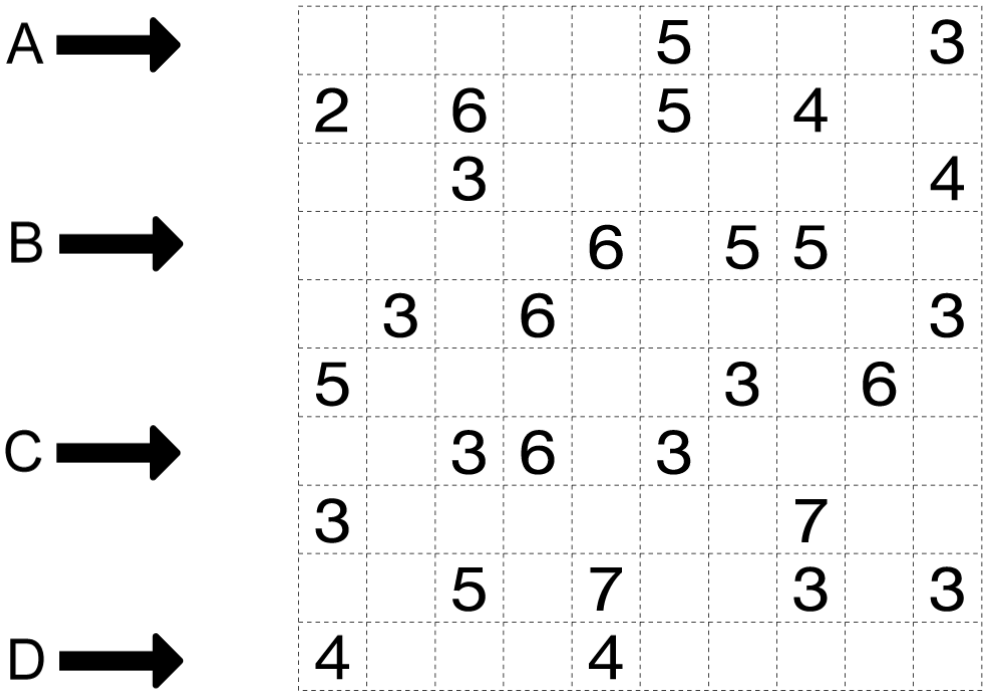
Answer: Enter the path-order of the letters and numbers. (For the Example, the answer would be A1BC2D3.)

3. Cave (Nikoli) - 5 points

Draw a single closed loop along the grid lines so that all the numbered squares are inside the loop. Additionally, each number equals the count of *interior* squares that are directly in line (horizontally and vertically) with that number's square, including the square itself.

Ex.



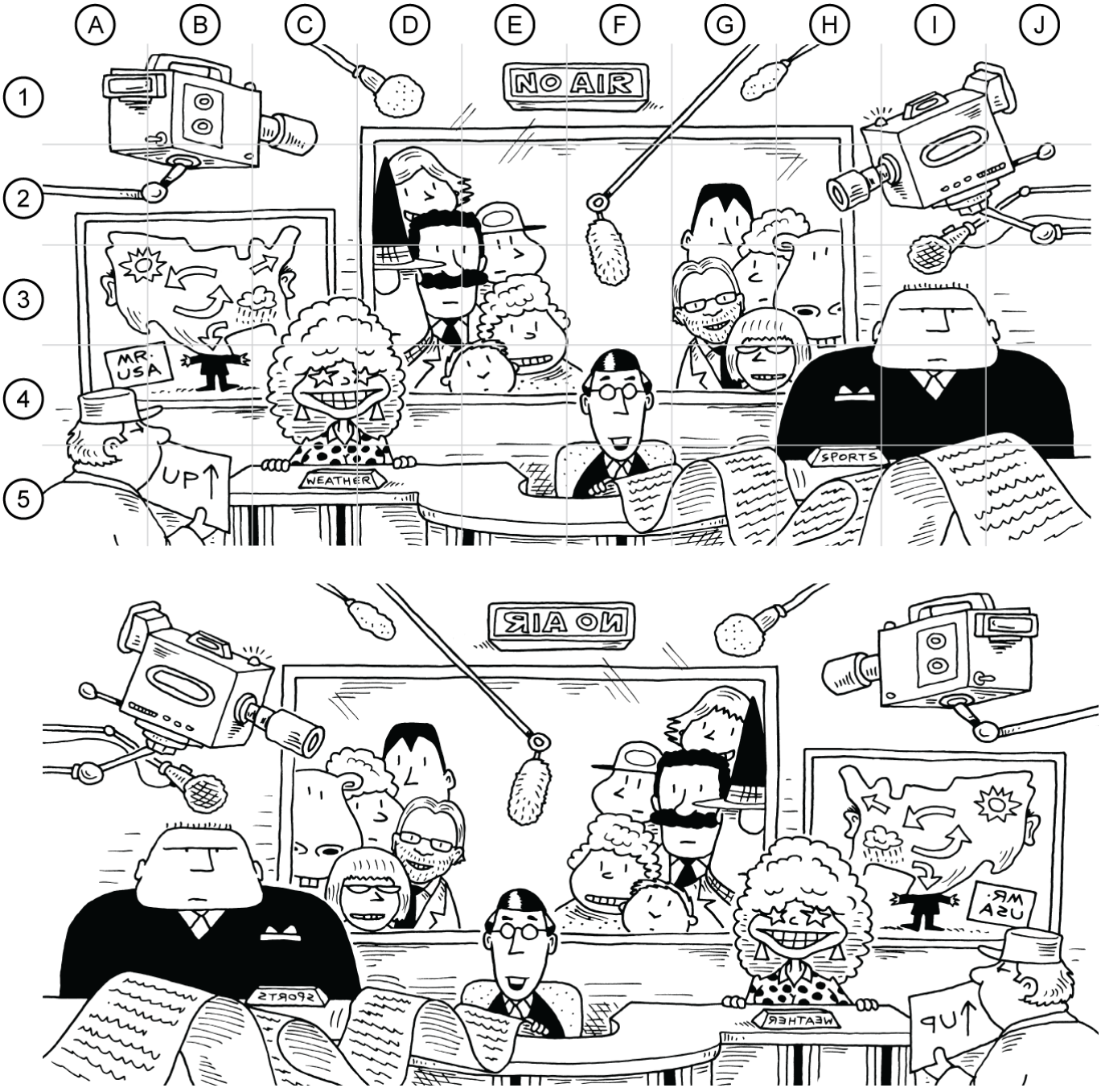


Answer: For the indicated rows (1st, 4th, 7th, and 10th), enter the widths of each group of cells *inside* the loop, from left to right. Separate each row by a comma or space. (For the Example, the answer would be 21,11.)

4. Airhead (Baxter/Merrill) – 1 point for each difference found; bonus: 5 points for finding all ten; penalty: -5 points if any difference is incorrect

Find the ten differences between the top picture and its reflection below.

The differences are clearly intentional, such as things that have disappeared, moved, changed size, shape, or orientation. Ignore the grid lines and subtle differences due to graphic anomalies or overall distortion. A grid square will contain at most one difference.

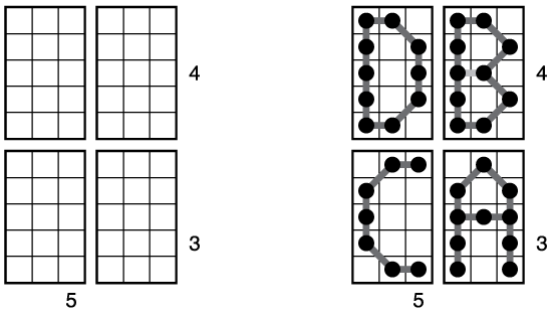


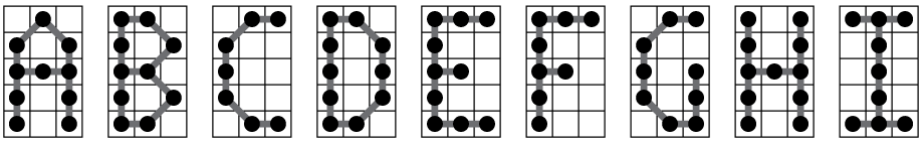
Answer: Enter the coordinates (such as "A1") for up to 10 differences found.

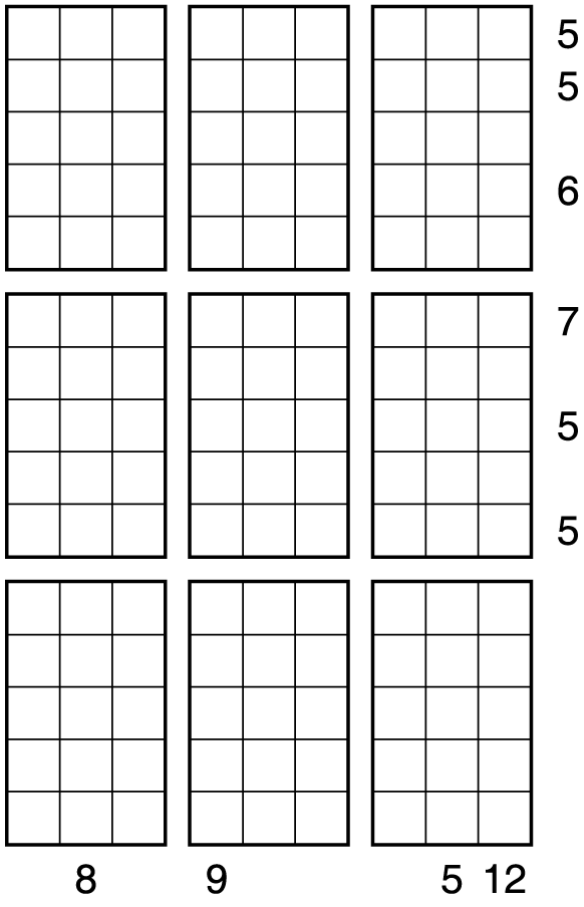
5. Letterboxes (Cihan Altay) – 10 points

Place the given letters into the boxes so that the clues give the number of dots in the corresponding row or column. Letters cannot be rotated or reflected.

Ex. (A-D)





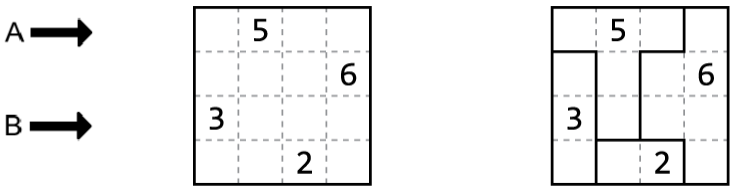


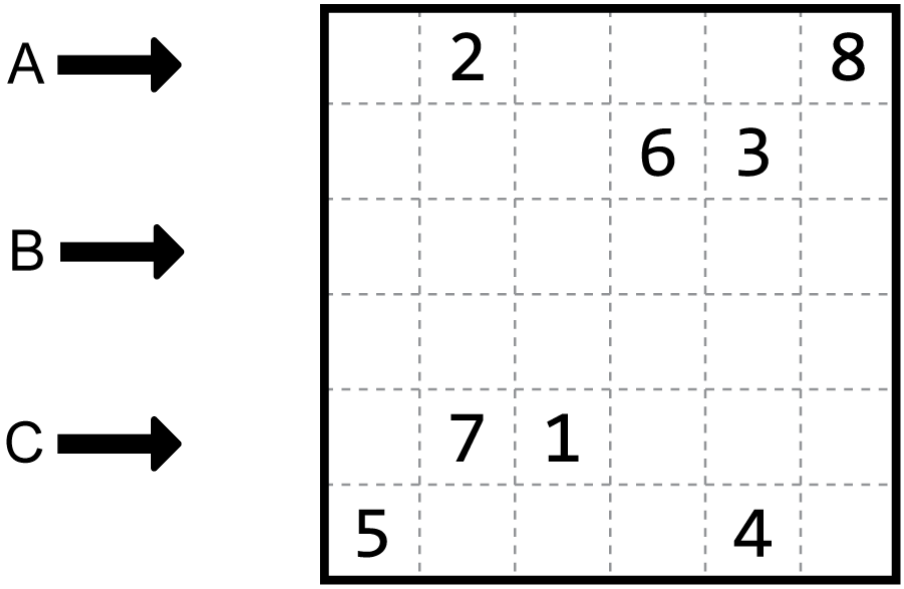
Answer: Enter the letters in each row, from left to right. (For the Example, the answer would be DB,CA.)

6. Butterfly Effect (Cihan Altay) - 10 points

Following the grid lines, divide the entire grid into mirror-symmetric shapes, so that each shape contains exactly one number, and that is the number of grid squares inside the shape.

Ex.

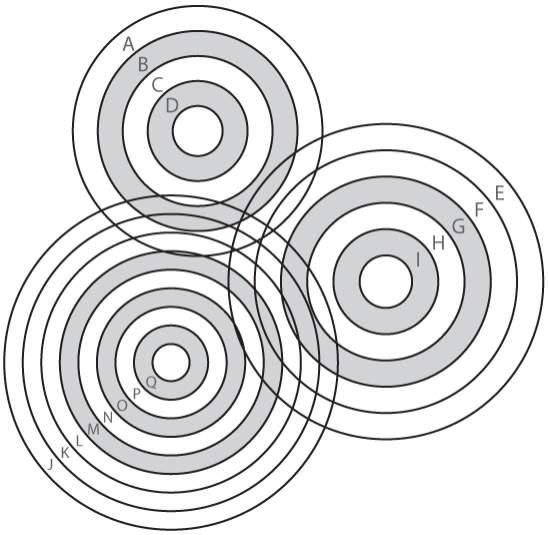




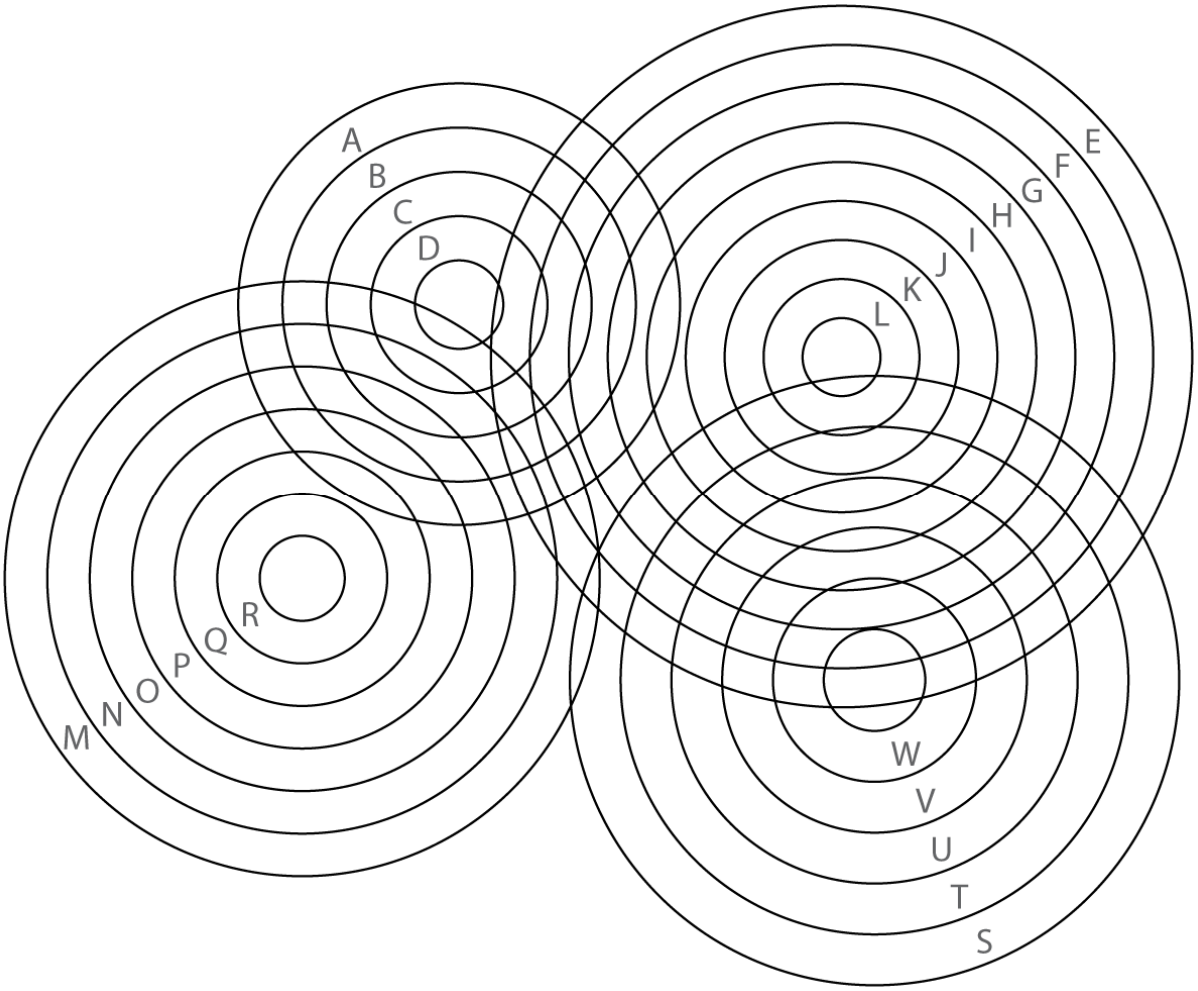
Answer: For the indicated rows (1st, 3rd, and 5th), and for each grid square in the row from left to right, enter the size of the containing region. (For the Example, the answer would be 5556,3566.)

7. Raindrops (Cihan Altay) - 10 points

Paint the maximum possible number of non-touching rings (made by two neighboring concentric circles).



Ex.

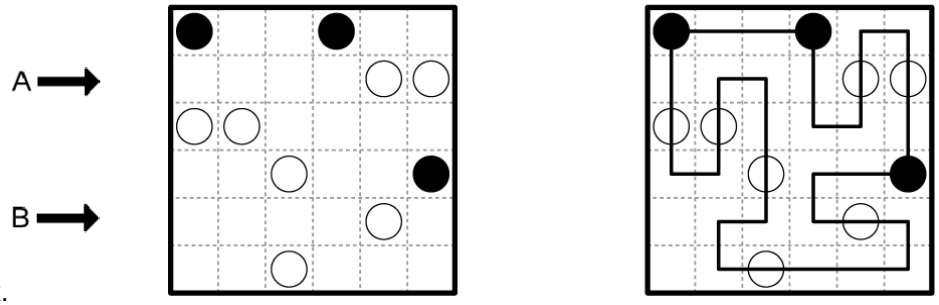


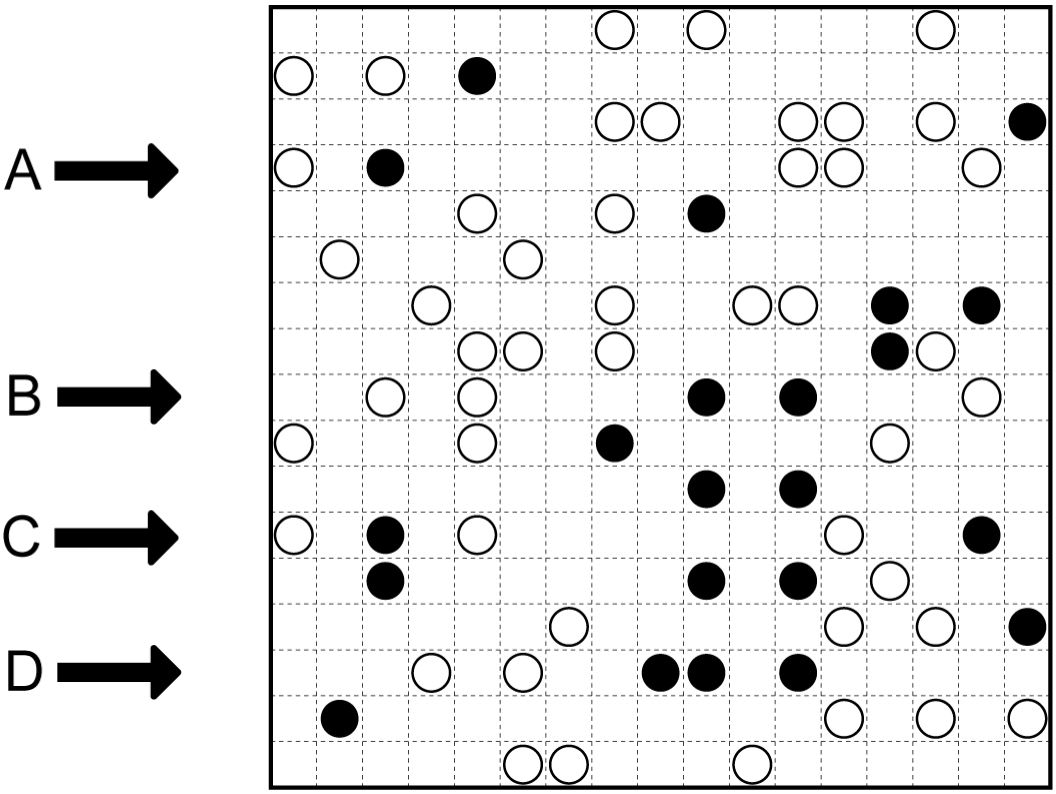
Answer: Enter the letters corresponding to the selected rings, in alphabetical order. (For the Example, the answer would be BDGIMOQ.)

8. Masyu (Nikoli) - 15 points

Find a single closed loop passing through each of the black and white circles. The loop passes through the centers of adjacent squares. When passing through a black circle, the loop must make a 90 degree turn and extend at least two squares in both directions. When passing through a white circle, the loop must go straight and must make a 90 degree turn in at least one of the adjacent squares.

Ex.



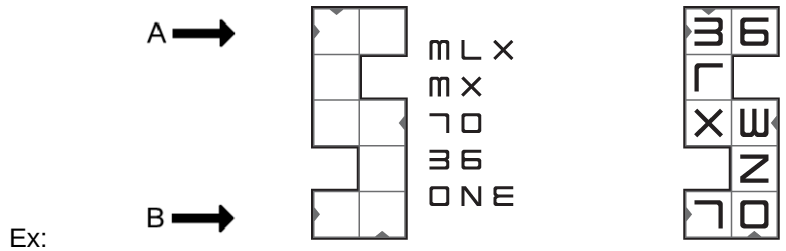


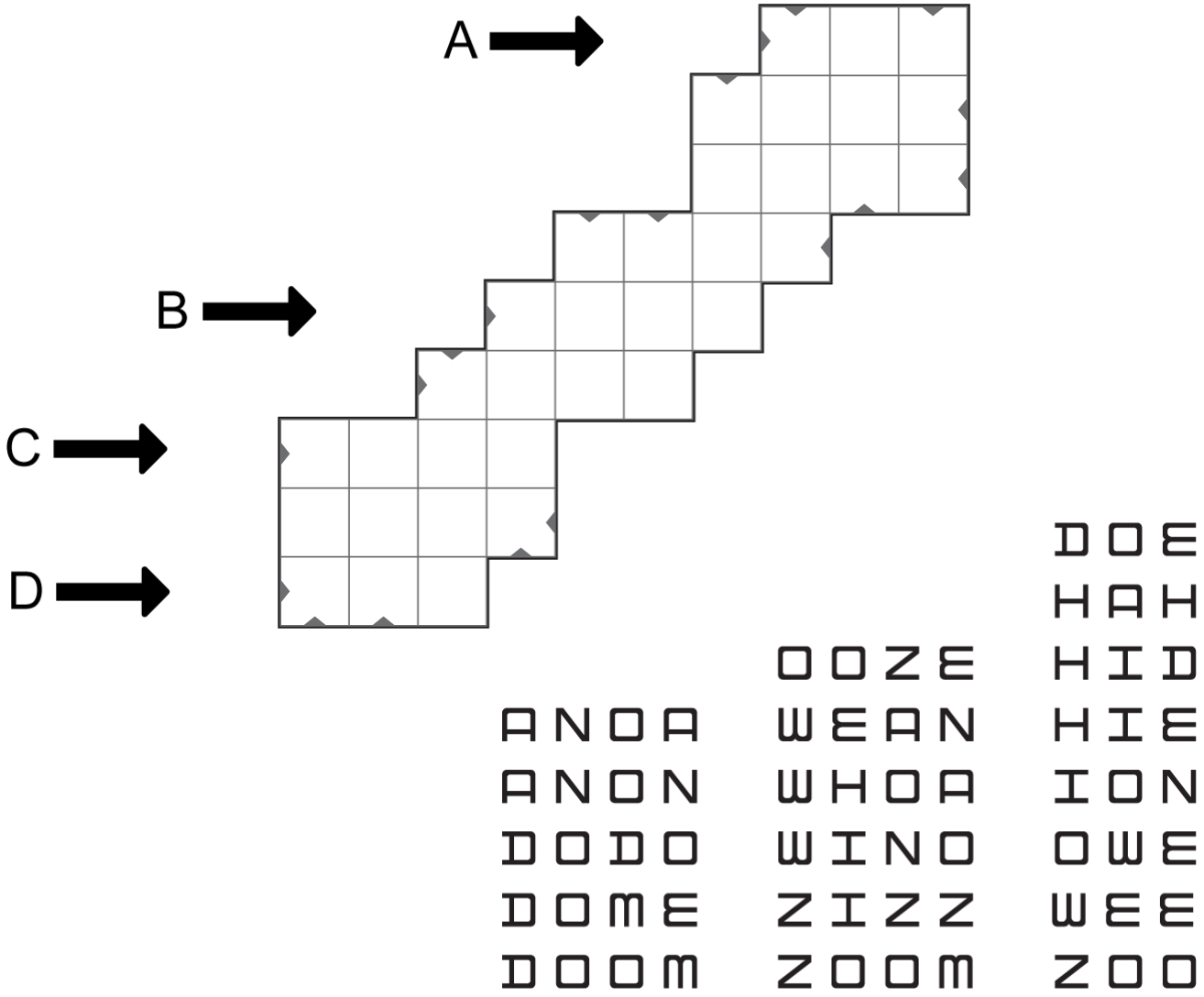
Answer: For the indicated rows (4th, 9th, 12th, and 15th), enter the lengths of the horizontal path line segments, from left to right. Separate each row by a comma or space. (For the Example, the answer would be 1,12.)

9. Weather Vane (Cihan Altay) – 15 points

Enter one symbol per square so that each arrow points to a different word from the list. When the grid is rotated so that an arrow is oriented left-to-right, the corresponding word will also read from left-to-right, starting with the square containing the arrow, and ending at the opposite edge of the grid. Some symbols will represent different letters or numbers, depending on orientation.

Ex:



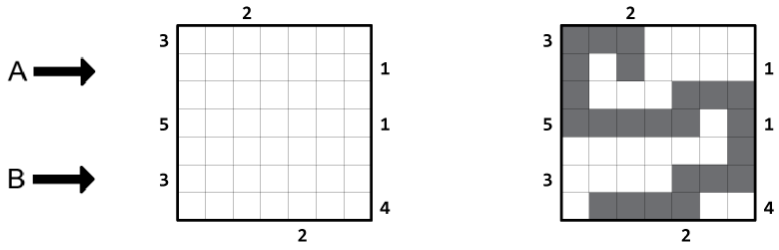


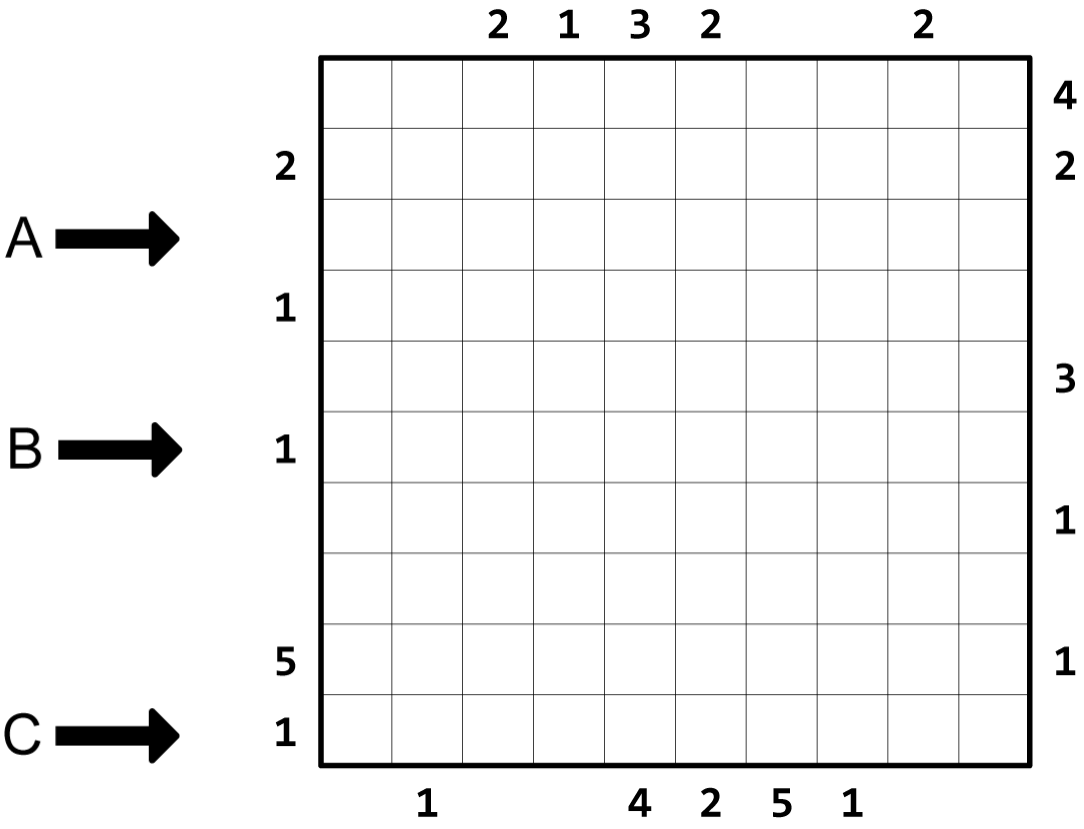
Answer: Enter the word for each of the indicated rows (1st, 5th, 7th, and 9th), separated by a commas or spaces. (For the Example, the answer would be 36,70.)

10. First Seen Snake (Serkan Yürekli) – 15 points

Locate a 45-cell long snake in the grid; the snake does not loop or touch itself, even at a point. The numbers outside the grid indicate the length of snake segments seen first from the corresponding direction.

Ex. (23-cell snake)



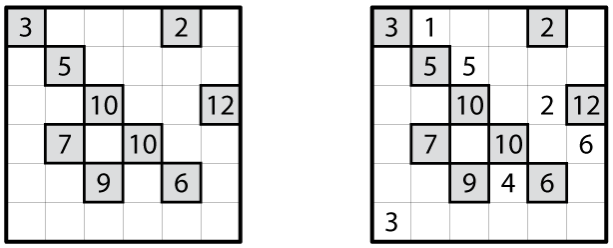


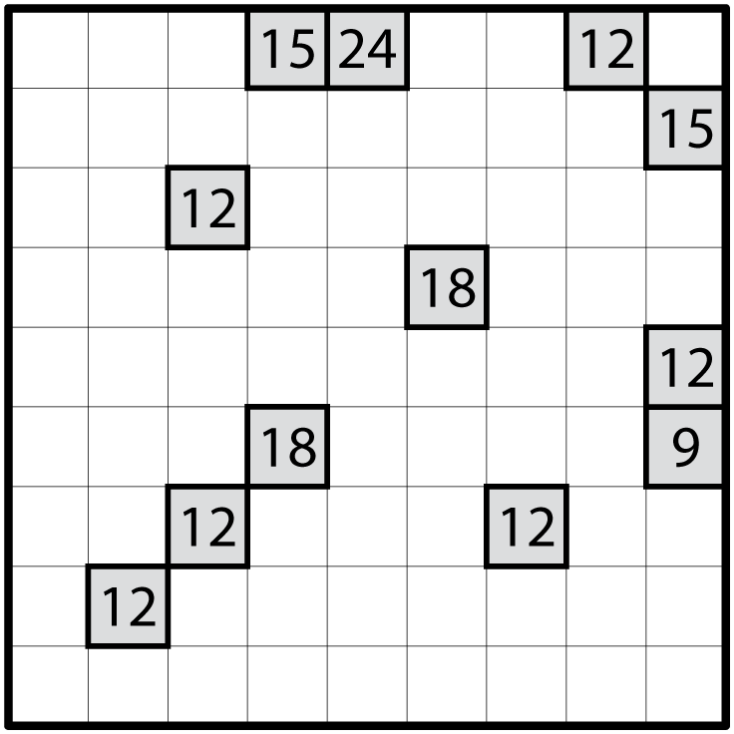
Answer: For the indicated rows (3rd, 6th, and 10th), enter the number of cells in each contiguous segment of cells that form the snake (including when the snake runs vertically through the row), from left to right. (For the Example, the answer would be 11,3.)

11. Intersections (Craig Kasper) – 15 points

Place the digits 1 through 9, once each, in the grid so that each row and column contains exactly one of the nine digits, and so that each of the given numbers in the highlighted squares is either the sum or the product of the digits in that square's row and column.

Ex. (1 - 6)





Answer: Enter the nine digits as they appear from left to right, then again from top to bottom. Separate each group by a comma or space. (For the Example, the answer would be 315426,152643.)

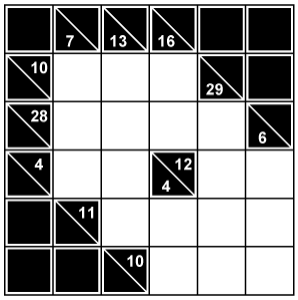
12. Kakuro (Serkan Yürekli) – 15 points

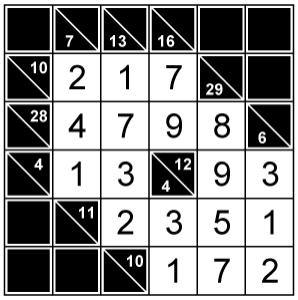
Enter a single digit from 1 to 9 into each empty square so that the sum of the digits in each Across and Down answer equals the clue value given to the left or above, respectively. No digit is repeated within a single answer.

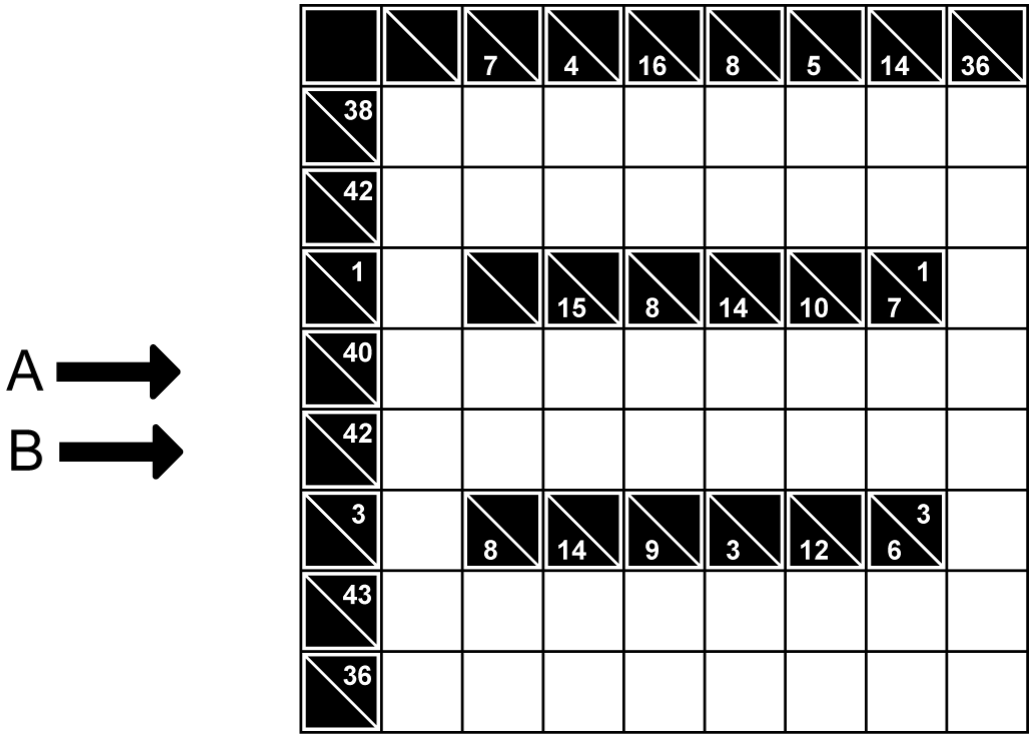
Ex.

A →

B →





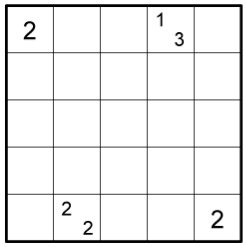


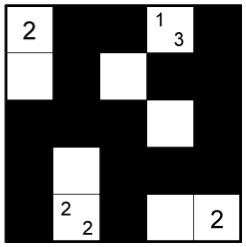
Answer: For the indicated rows (5th and 6th), enter the digits from left to right. (For the Example, the answer would be 217,2351.)

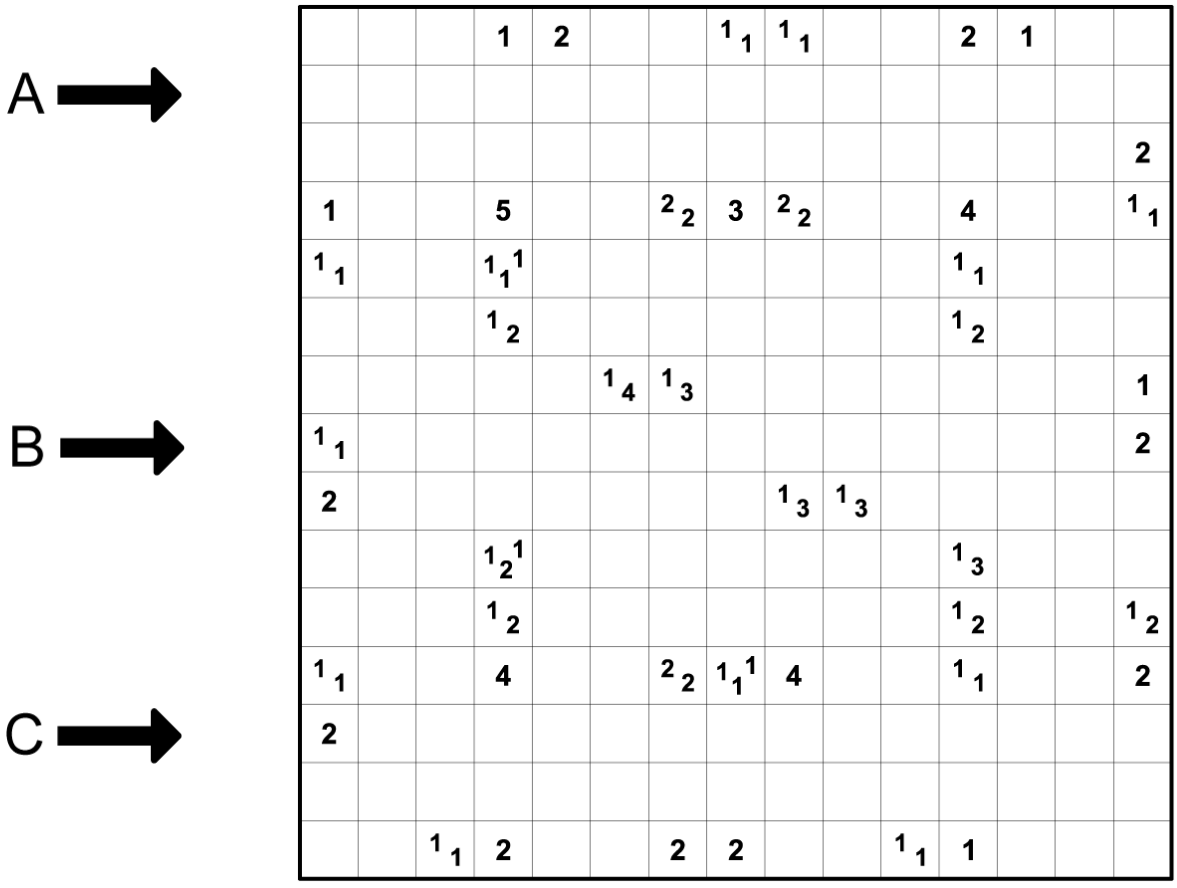
13. Tapa (Serkan Yürekli) - 15 points

Paint some empty squares black to make a single network of paths, connecting squares vertically or horizontally, but never covering a 2x2 region. A square containing one or more numbers indicates the sizes of all groups of consecutively adjacent black squares, where multiple groups are separated by at least one white square.

Ex.



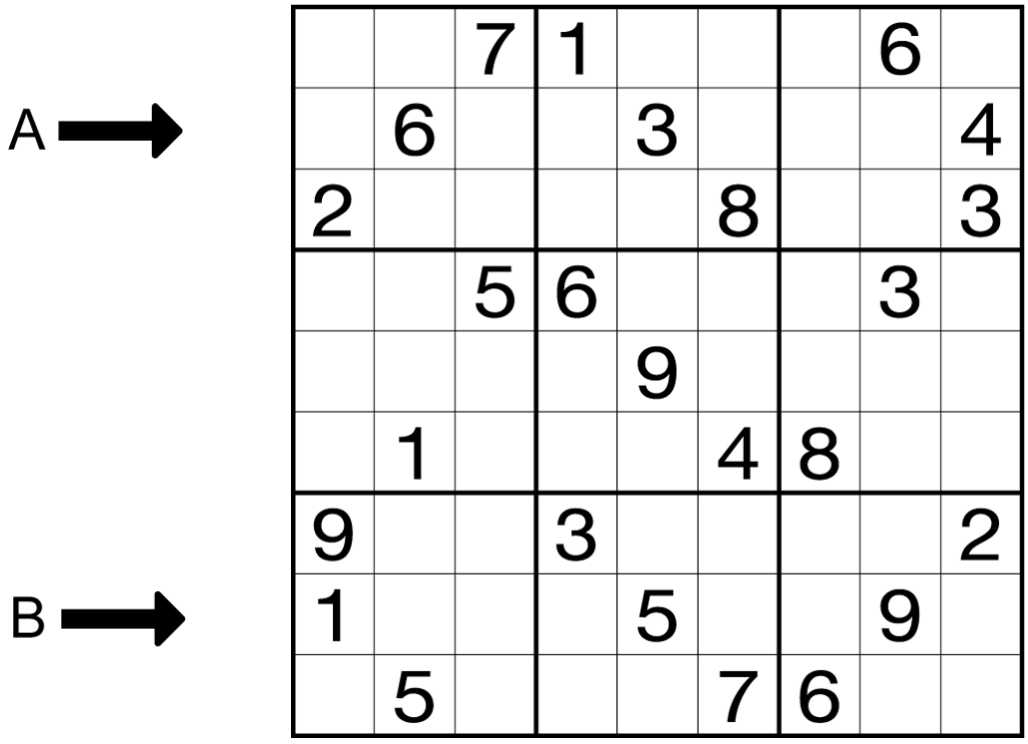




Answer: For the 2nd, 8th, and 13th rows, enter the widths of each group of black squares, from left to right. Separate each row by a comma or space. (For the Example, the answer would be 12,13.)

14. Sudoku (Nikoli) – 20 points

Place the digits 1 through 9 into the empty squares (one per square) so that each digit appears exactly once in each of the following regions: the nine rows, the nine columns, and the nine outlined 3x3 regions.



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

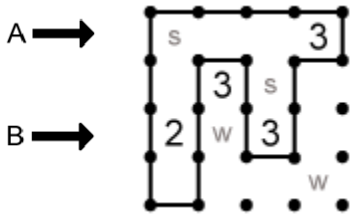
Answer: Enter the 2nd row of digits, followed by the 8th row of digits.

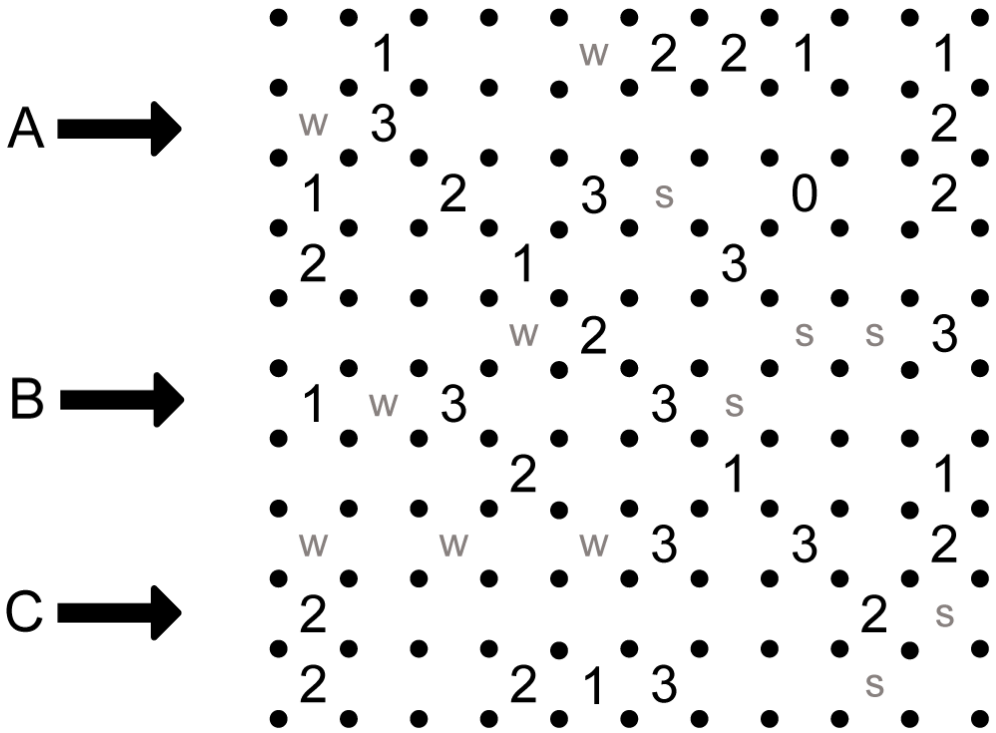
15. Wolves and Sheep in Fences (Dave Tuller) - 20 points

Draw a single closed loop by connecting neighboring dots horizontally or vertically (but not diagonally). A numbered square indicates exactly how many of its edge segments are used by the loop.

A square containing a sheep ("s") must end up inside the loop; a square containing a wolf ("w") must end up outside the loop.

Ex.



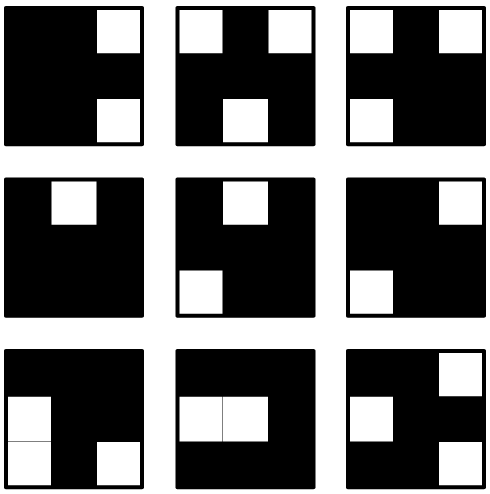


Answer: For the indicated rows (2nd, 6th, and 9th), enter the number of cells in each contiguous segment of cells inside the loop, from left to right. (For the Example, the answer would be 4,11.)

16. Crisscross Blocks (Serkan Yürekli) – 20 points

Place the given blocks over the text grid, without rotation or overlap, covering all non-letters and some letters. Use the remaining letters (those not covered due to the holes in the blocks) as the starting grid for a Crisscross puzzle. (A blank grid is provided as a work area.)

For the Crisscross, place each of the 16 given words once into the grid, reading across or down so that all words interconnect, and all words formed in the grid must be from the list. Each given (not covered) letter must be used by at least one word.



F	R	O	M	C	H	I	L	D
H	O	O	D	S	H	O	U	R
I	H	A	V	E	N	O	T	B
E	E	N	A	S	O	T	H	E
R	S	W	E	R	E	-	I	H
A	V	E	N	O	T	S	E	E
N	A	S	O	T	H	E	R	S
S	A	W	-	I	C	O	U	L
D	N	O	T	B	R	I	N	G

Text from *Alone*, by Edgar Allan Poe

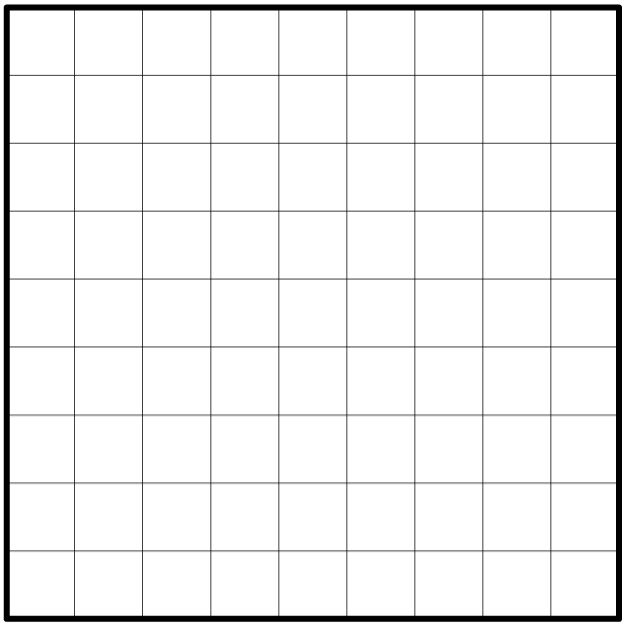
B

AI
AYE
CHEST
HOIST
NORTH
RAPID

REHEAR
THEORY

BOSH
HIND
IRIS
PESO
TAXI
TROT
TUBA
UNIT

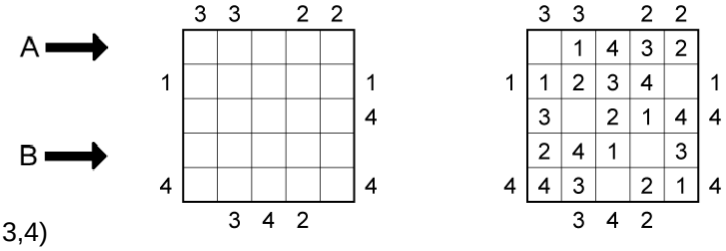
A



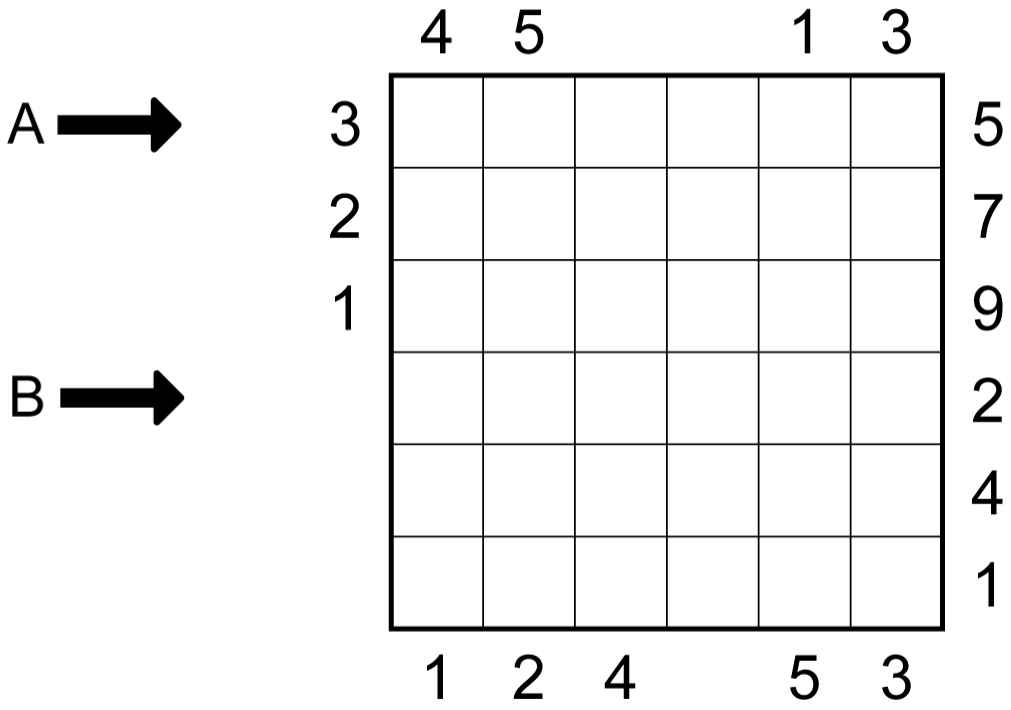
Answer: Enter the letters in the indicated rows and columns (8th row and 7th column). Enter "-" for empty squares. (For the Example in the Preview Instructions, the answer would be –EMIT-,STIR-B.)

17. Easy as Skyscraper (Craig Kasper) - 20 points

Enter the digits 1, 3, 5, 7, 9 into the grid so that each digit (and one empty square) appears exactly once in each row and column. Numbers outside the grid are either *Easy as ABC* or *Skyscraper* clues: either the clue is the first digit that appears in the corresponding row or column from the direction of the clue, or it is the number of digits in the corresponding row or column that can be "seen" from that direction (higher digits block the view of lower digits).



Ex. (using digits 1,2,3,4)



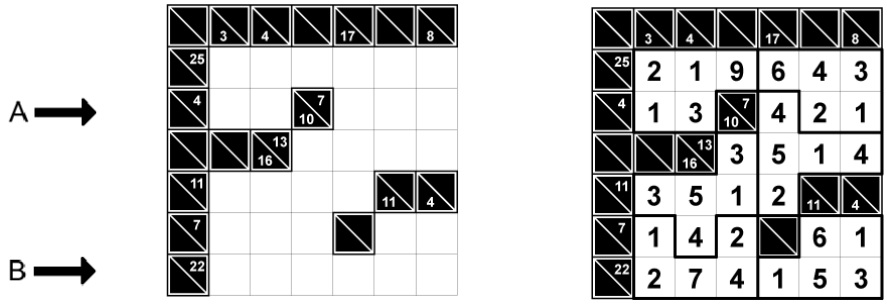
Answer: For the indicated rows (1st and 4th), enter all the digits from left to right, and "-" for an empty square. (For the Example, the answer would be -1432,241-3.)

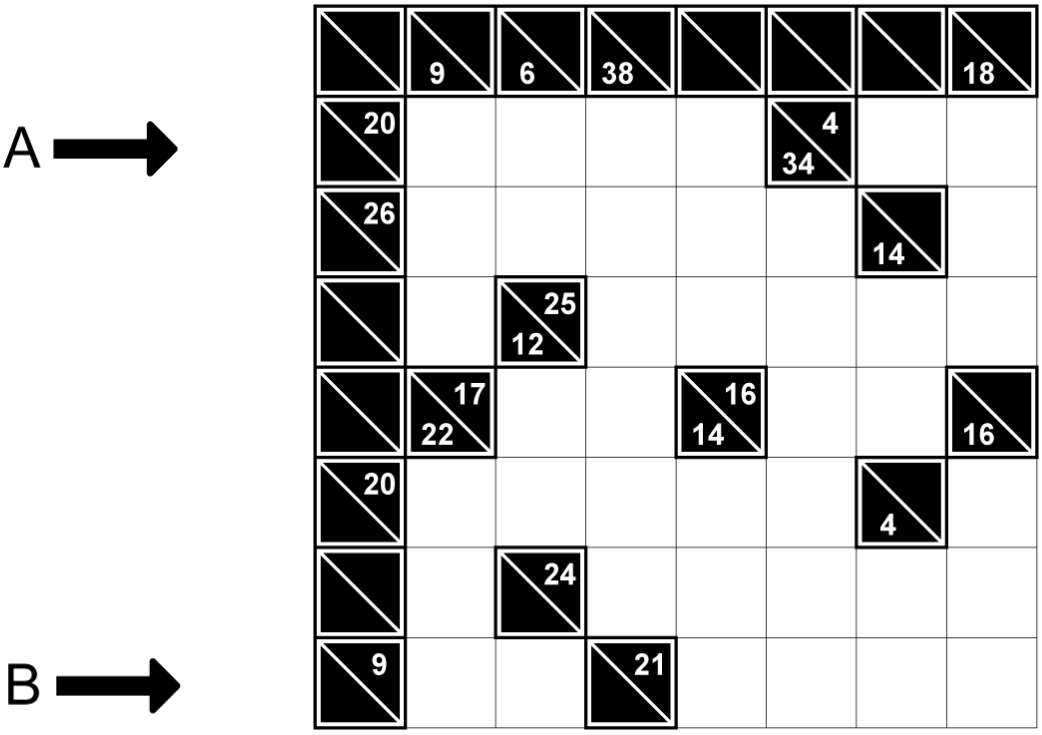
18. Kakuro with Pentominoes (Serkan Yürekli) – 25 points

Enter a single digit from 1 to 9 into each empty square so that the sum of the digits in each Across and Down answer equals the clue value given to the left or above, respectively. No digit is repeated within a single answer.

Additionally, divide the entry squares into pentomino shapes, so that the sum of the five digits is the same for all pentominoes. Pentomino shapes can be rotated, reflected, and reused. (Digits can repeat inside a single pentomino.)

Ex.





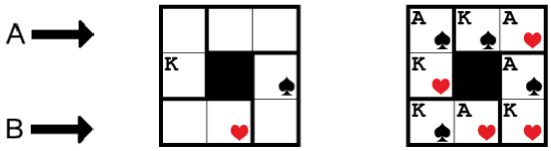
Answer: For the indicated rows (2nd and 8th), enter the digits from left to right. (For the Example, the answer would be 13421,274153.)

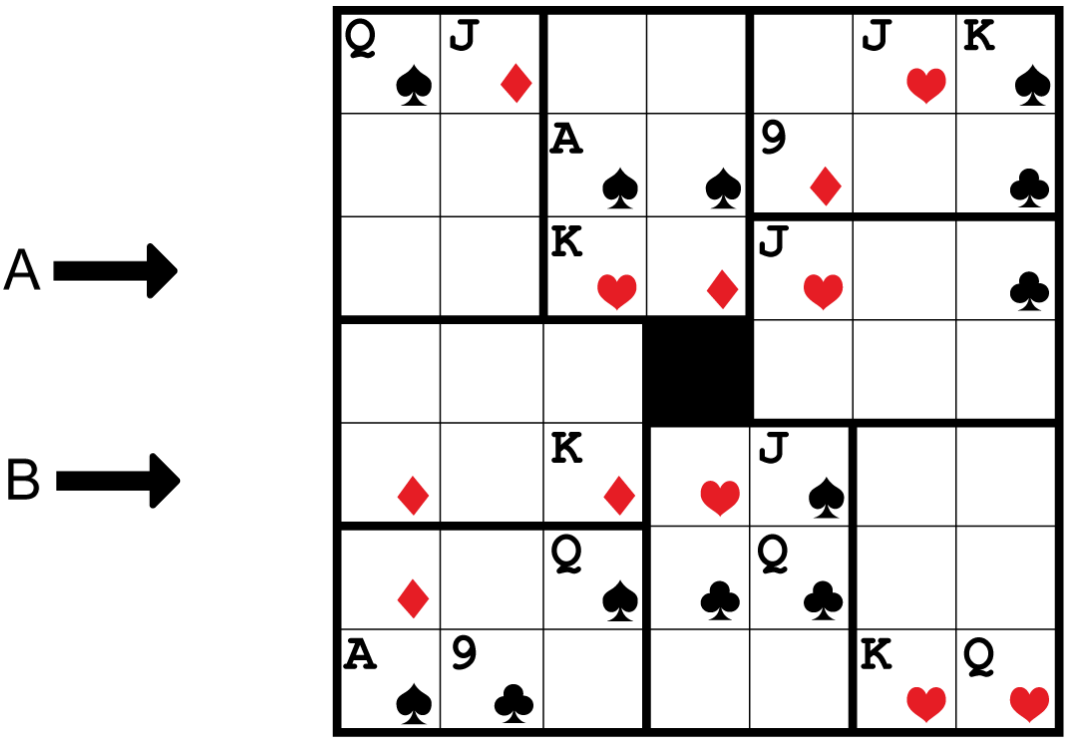
19. Pinochlada (Adam R. Wood) – 30 points

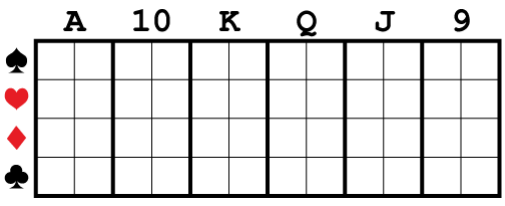
Place the 48 cards from the pinochle deck into the grid (the center square is not used). Each rank (ace, ten, king, queen, jack, nine) and suit (spades, hearts, diamonds, clubs) appears either once or twice in each row, column, and outlined 2x3 region. Identical cards cannot appear in the same row, column, or region.

A pinochle deck is 48 cards, and includes two copies of each combination of rank and suit. A checklist grid is given for convenience.

Ex. (ace/king, spades/hearts)





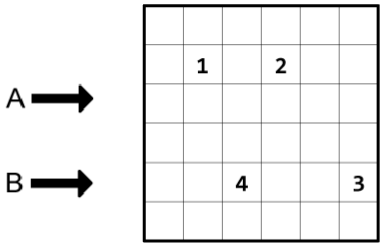


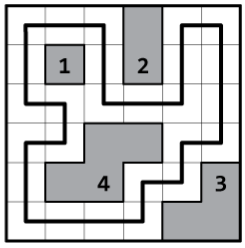
Answer: Enter the ranks in the indicated rows (3rd and 5th). Enter "A","T","K","Q","J","9" for ace, ten, king, queen, jack, and nine. (For the Example, the answer would be AKA,KAK.)

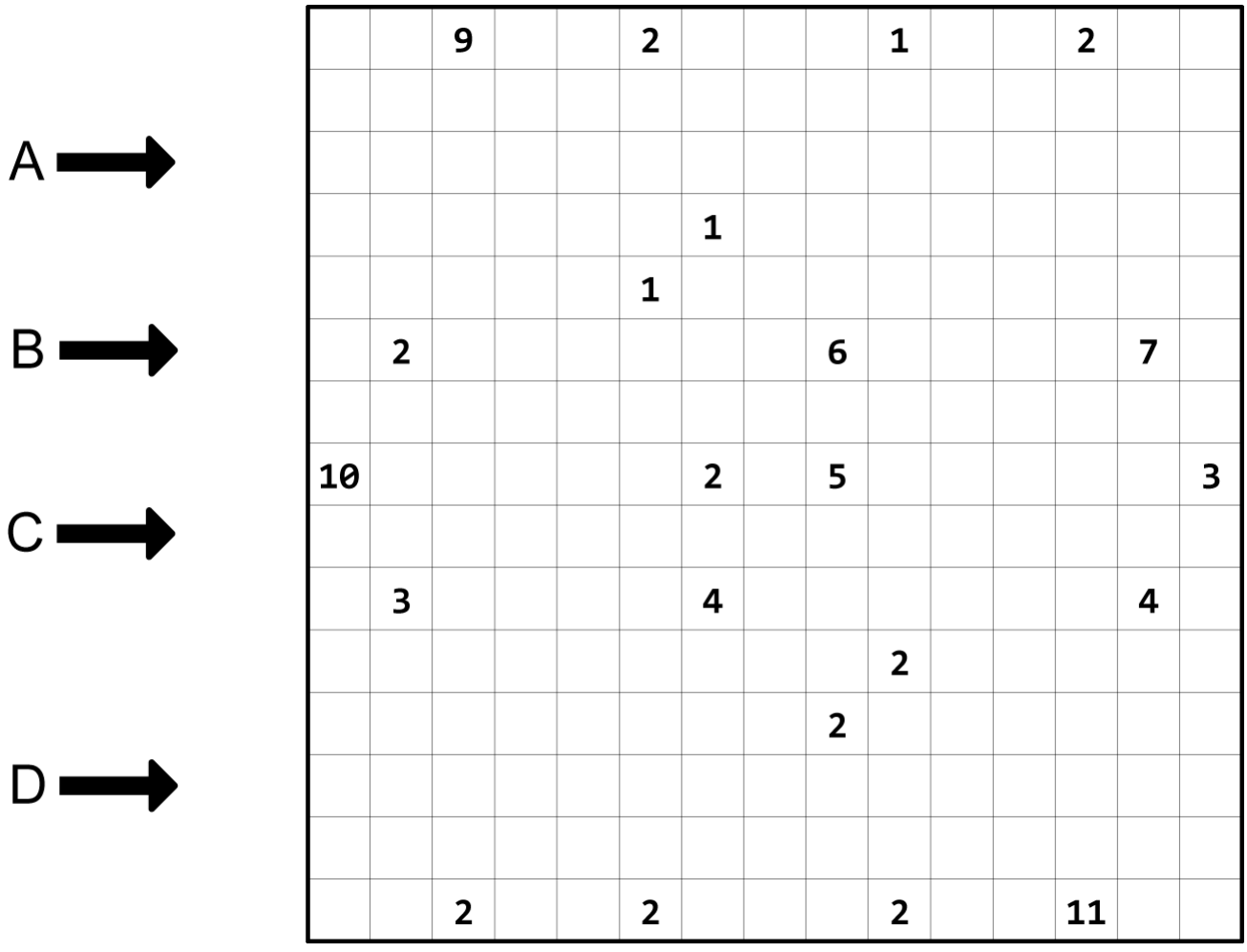
20. Nurikabe Loop (Serkan Yürekli) – 30 points

Divide the grid into regions, each containing exactly one of the given numbers and with the same area as that number. Regions can only touch diagonally at a point. Then draw a single closed loop through each of the remaining unused squares.

Ex.





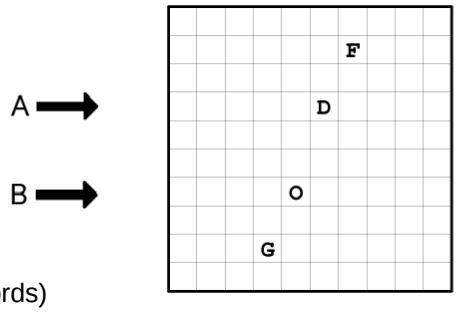


Answer: For the indicated rows (3rd, 6th, 9th, and 13th), enter the length of the horizontal path line segments, from left to right. Separate each row by a comma or space. (For the Example, the answer would be 12,1.)

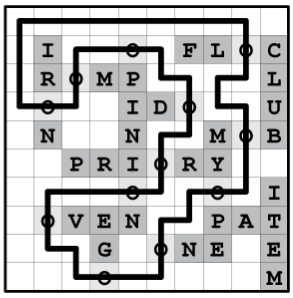
21. O'utcast (Serkan Yürekli) - 30 points

Place each of the 24 given words into the grid, reading across or down; all words should interconnect, and all words formed in the grid must be from the list. Each given letter must be used by at least one word.

Additionally, draw a *Masyu* loop: a single closed loop passing through each of the "O"s and otherwise using only unused squares. When passing through an "O", the loop must go straight through and must make a 90 degree turn in at least one of the adjacent squares.



Ex. (14 words)

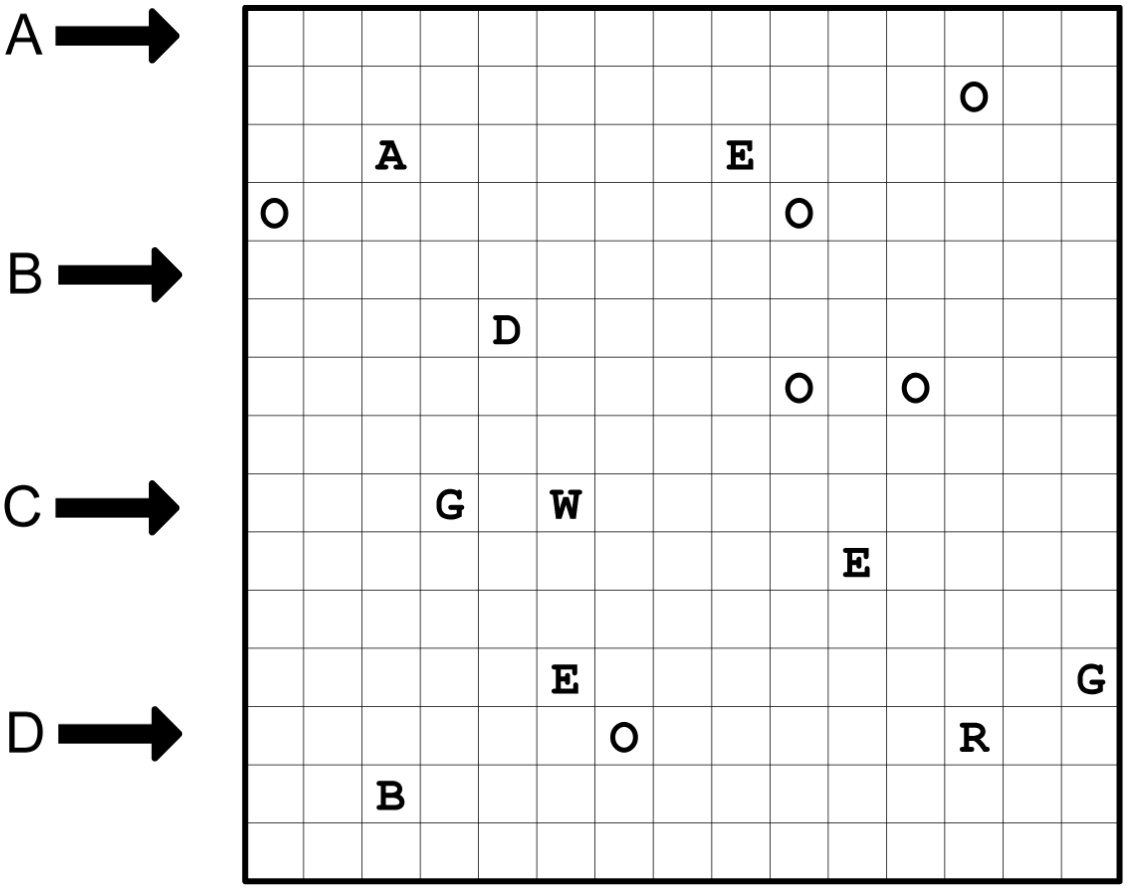


EGO
IDO
MOB
ONE
PAT

MYOPE

PRIORY
OPINION

CLUB
FLOC
IRON
ITEM
OVEN
ROMP



ABOVE
AMIGO
ARMOR
AWOKE
CANOE
COLON
CYCLE
GOLEM
KOTOS
LABOR
LEMON
MAJOR
NUDGE
OCEAN
OCTAL
OLOGY
OMEGA
OSMIC
OUIJA
OXBOW
RADAR
SEGNO

ANGORA
ARROYO

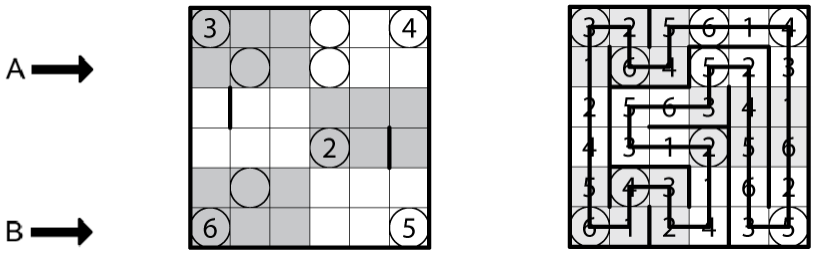
Answer: For the indicated rows (1st, 5th, 9th, and 13th), enter the letters in the row, followed by the lengths of the horizontal path line segments, from left to right. Separate each group by a comma or space. (For the Example, the answer would be OIDOU,21,OOI,42.)

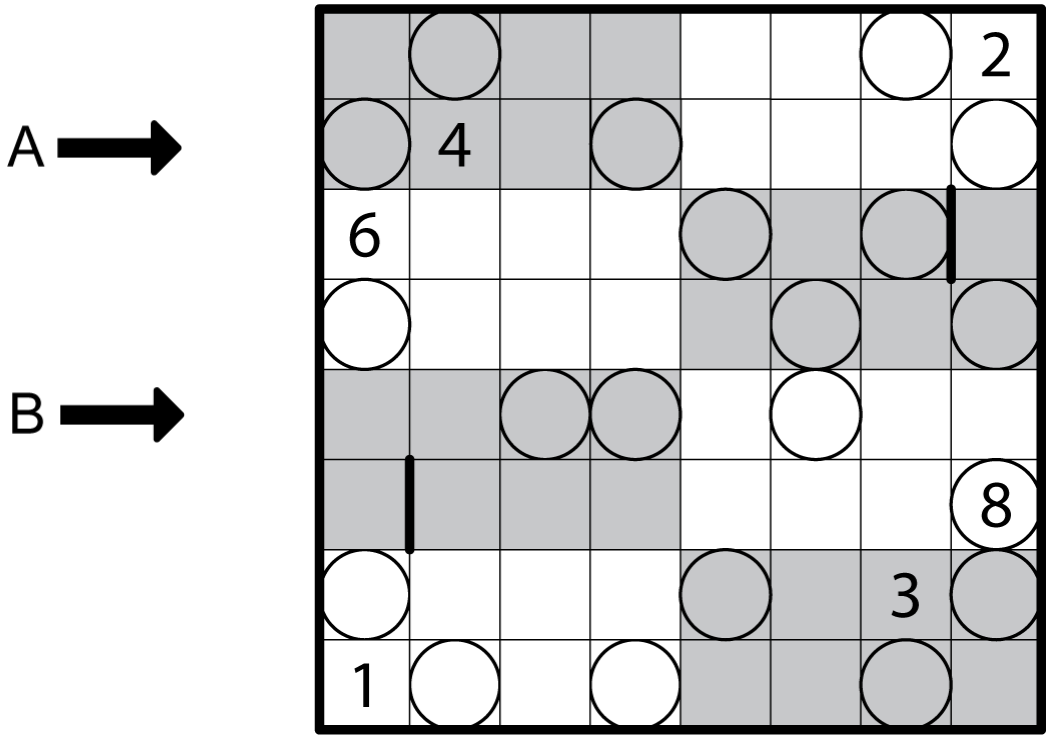
22. Pathfinder Sudoku (Craig Kasper) - 30 points

Place the digits 1 through 8 into the empty squares (one per square) so that each digit appears exactly once in each of the following regions: the eight rows, the eight columns, and the eight highlighted 4x2 regions.

Additionally, there is a single closed loop that connects square orthogonally, and passes though every square. Every square whose digit is the sum of the digits on either side of it in the path is marked with a circle. Some barriers are given, through which the loop cannot cross.

Ex. (digits 1-6, 3x2 regions)





Answer: For the indicated rows (2nd and 5th), enter the digits in the row, followed by lengths of the horizontal path line segments. Separate each group by a comma or space. (For the Example, the answer would be 164523,11,612435,111.)

END OF TEST