



Round 4: Over the Horizon

Advanced Division

Name: _____

A.4.1	Multiplication Link	2 points	A.4.10	Triomino Voxas	2 points
A.4.2	Multiplication Link	6 points	A.4.11	Triomino Voxas	4 points
A.4.3	Multiplication Link	12 points	A.4.12	Triomino Voxas	6 points
A.4.4	Tetrochain	2 points	A.4.13	Tumbleweed Loop	3 points
A.4.5	Tetrochain	5 points	A.4.14	Tumbleweed Loop	9 points
A.4.6	Tetrochain	15 points	A.4.15	Tumbleweed Loop	20 points
A.4.7	San-Anko	2 points			
A.4.8	San-Anko	4 points			
A.4.9	San-Anko	8 points			

Total: 100 points

A.4.1 – A.4.3: Multiplication Link

Draw a loop through the grid that turns on every circle. A number tells the product of the segment lengths coming out of the circle.

A.4.1 – A.4.3: Multiplication Link

Draw a loop through the grid that turns on every circle. A number tells the product of the segment lengths coming out of the circle.

Puzzle A.4.2 (6 points)

Puzzle A.4.1 (2 points)

A 10x10 grid of dots. Numbers are placed in circles at the following intersections (row, column): (1,1)=6, (1,3)=2, (2,10)=2, (3,3)=4, (3,5)=2, (4,8)=2, (5,1)=2, (6,4)=2, (6,6)=1, (7,1)=3, (8,5)=6, (8,8)=1.

Puzzle A.4.1 (2 points)

A 10x10 grid of dots. Numbers are placed in circles at the following intersections (row, column): (1,1)=6, (1,3)=2, (2,10)=2, (3,3)=4, (3,5)=2, (4,8)=2, (5,1)=2, (6,4)=2, (6,6)=1, (7,1)=3, (8,5)=6, (8,8)=1.

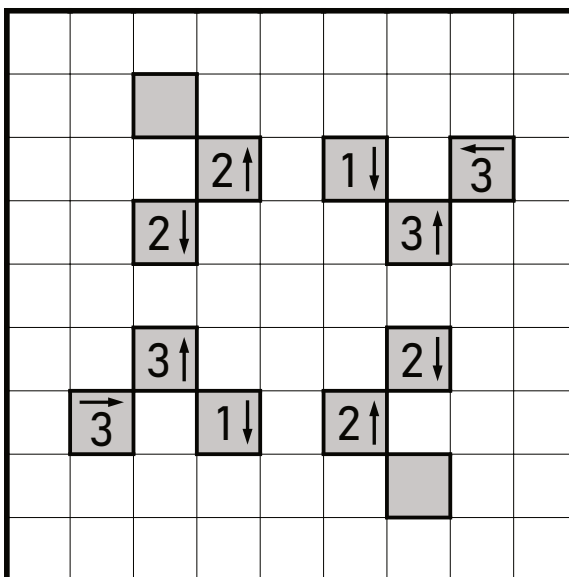
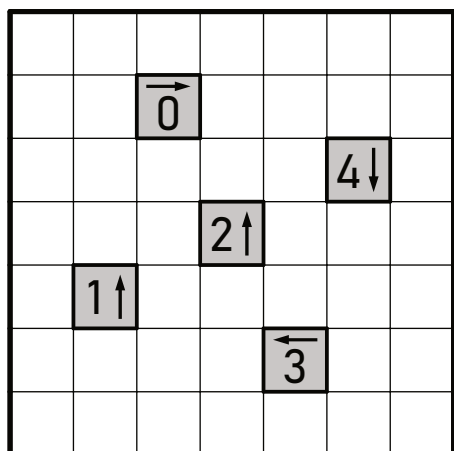
Puzzle A.4.3 (12 points)

A.4.4 - A.4.6: Tetrochain

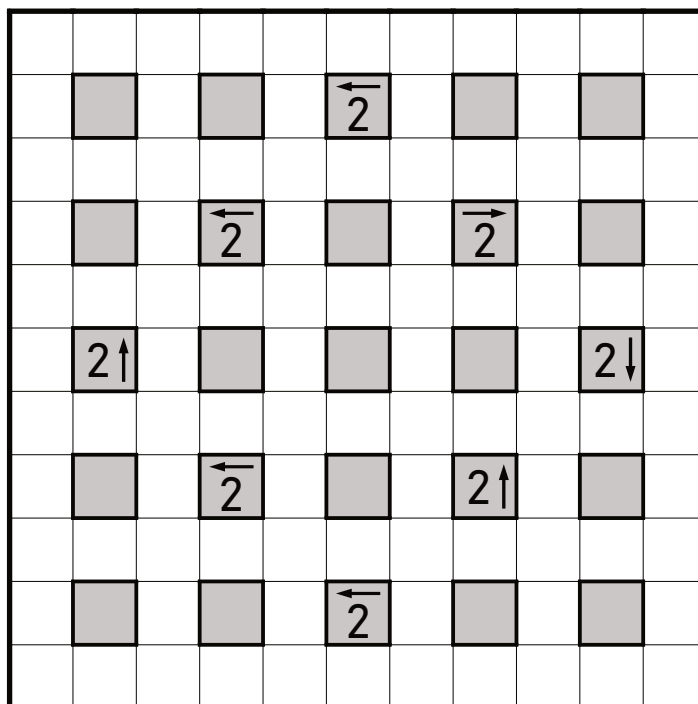
Shade some tetrominoes of cells such that no two tetrominoes touch each other orthogonally, but all tetrominoes form one diagonally connected network. Two tetrominoes of the same shape may not touch diagonally, counting rotations and reflections as the same. Gray cells cannot be shaded, and clues represent the number of shaded cells in a straight line in the indicated direction.

Puzzle A.4.5 (5 points)

Puzzle A.4.4 (2 points)



Puzzle A.4.6 (15 points)



A.4.7 - A.4.9: San-Anko

Place a number between 1 and 3 in some empty cells. Numbers must appear in groups of 3 orthogonally connected cells with the same number; different groups cannot touch at an edge. Clues on shaded cells indicate the sum of numbers in the (up to four) orthogonally adjacent cells.

Puzzle A.4.7 (2 points)

		4			
3					5
2					6
			7		

Puzzle A.4.8 (4 points)

	6		2		7	
	6		2		8	
	0		2		3	

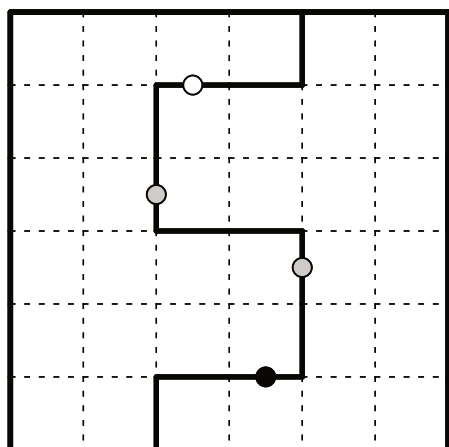
Puzzle A.4.9 (8 points)

							2	
			4					1
		3						
						7		
2	4			5			6	4
		3						
						7		
2					5			
	1							

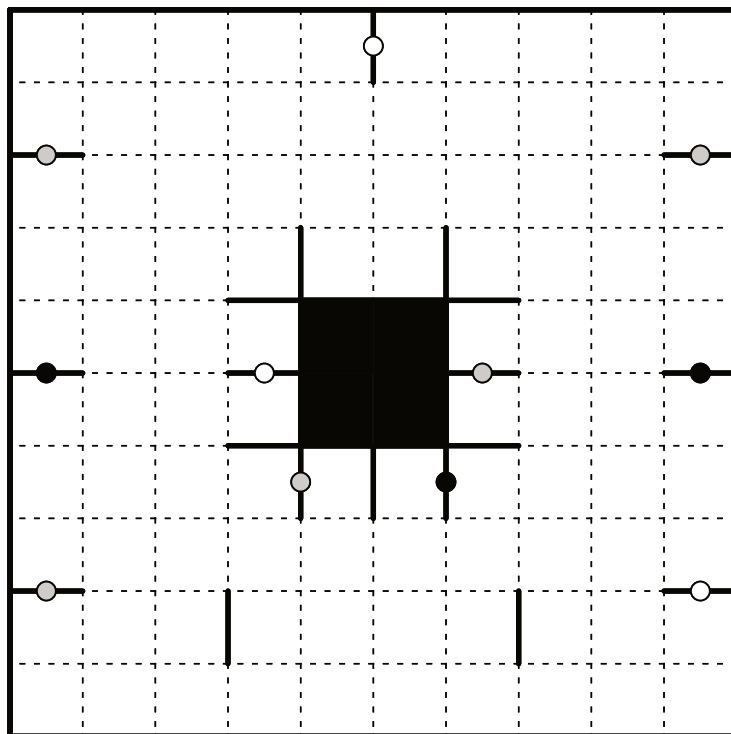
A.4.10 - A.4.12: Triomino Voxas

Divide the grid into triominos. Given edges must separate two distinct triominos. A white circle indicates that the two triominos bordering the clue must have the same shape and orientation. A gray circle indicates that the two triominos bordering the clue must have the same shape, but not the same orientation. A black circle indicates that the two triominos have different shapes.

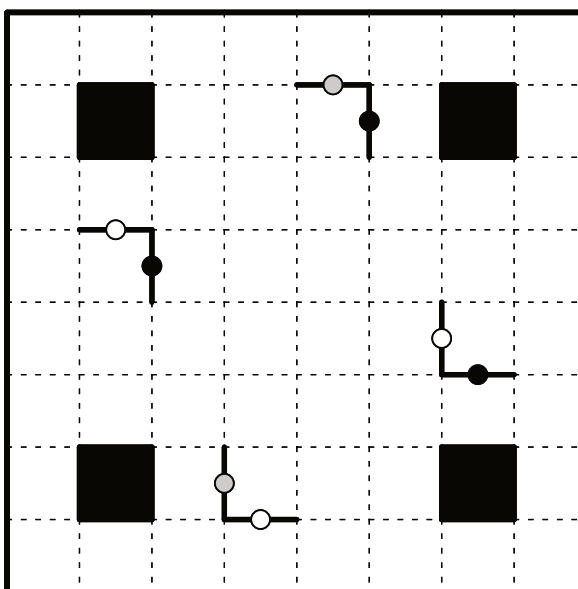
Puzzle A.4.10 (2 points)



Puzzle A.4.11 (4 points)



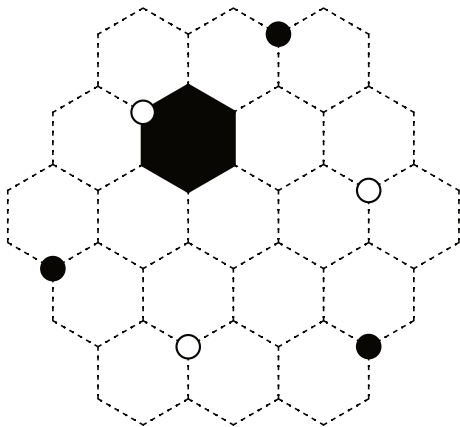
Puzzle A.4.12
(6 points)



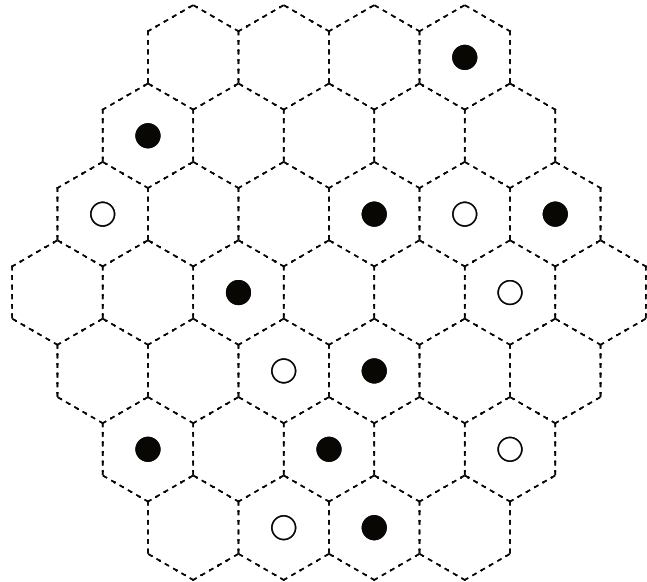
A.4.13 - A.4.15: Tumbleweed Loop

Draw a single non-self-intersecting loop. Each hexagon must contain exactly one line segment joining two of its vertices. Line segments cannot lie on the edge of a hexagon. Two line segments touching a vertex cannot form a straight line (that is, the loop must turn at every vertex). White circles are inside the loop, while black circles are outside the loop.

Puzzle A.4.13 (3 points)



Puzzle A.4.14 (9 points)



Puzzle A.4.15 (20 points)

