

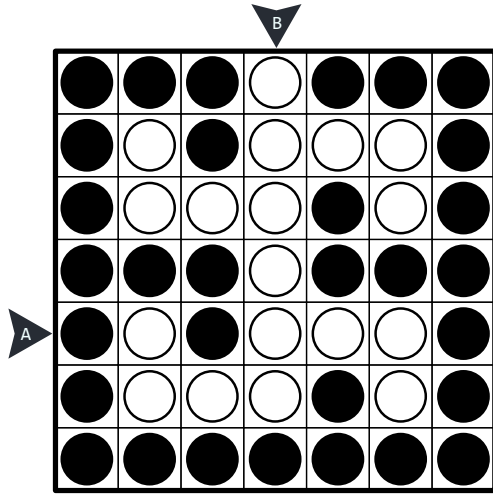
Yin Yang

1 + 2 + 4 + 7 points

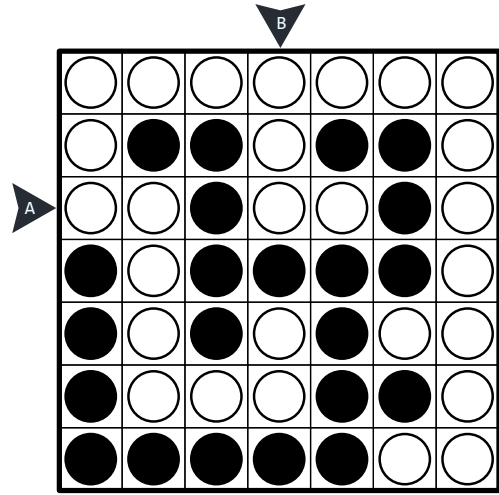
- Divide the grid into two regions of black and white by placing either a black or a white circle in each empty cell.
- All circles of same color are connected to each other, vertically or horizontally.
- No 2X2 group of cells can contain circles of a single color.

Answer Key: For each marked row/column, enter the length of continuous white and black circle blocks - from left to right / top to bottom.

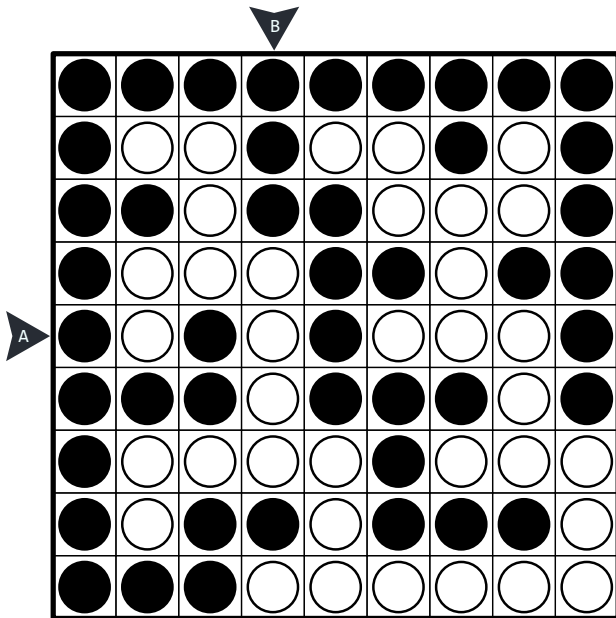
Yin Yang - 1 (1 point)



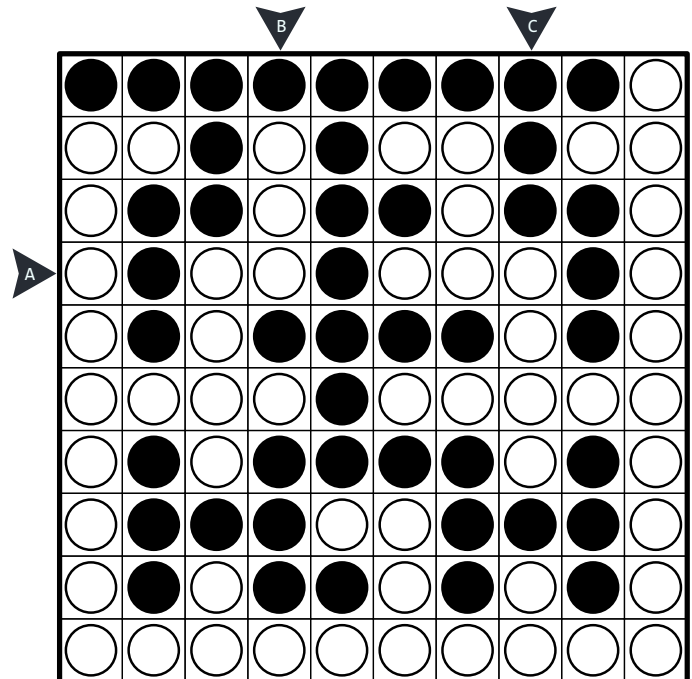
Yin Yang - 2 (2 points)



Yin Yang - 3 (4 points)



Yin Yang - 4 (7 points)



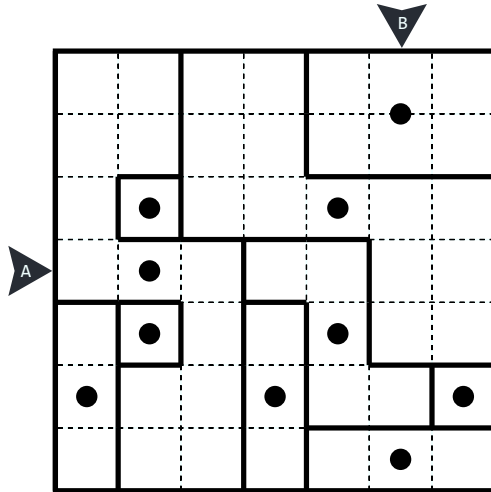
Spiral Galaxies

2 + 4 + 6 + 10 points

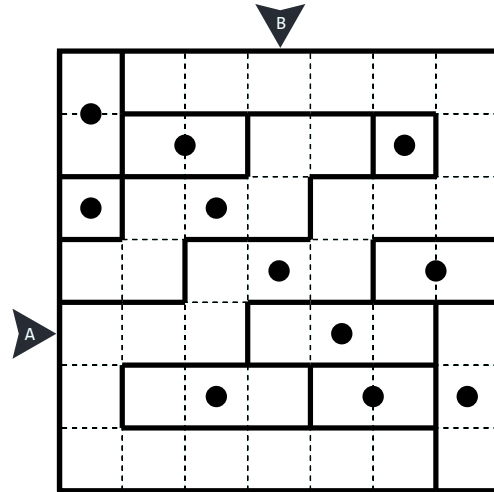
- Divide the grid into 180 degree symmetrical regions along the gridlines, so that each cell is part of only one region.
- Each region must contain exactly one circle, which represents the central symmetry point of the region. All circles are given.
- All cells must be part of a region.

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

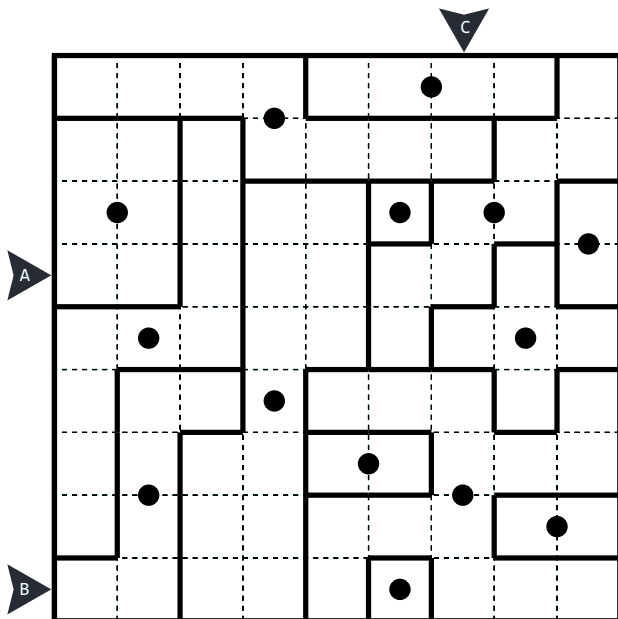
Spiral Galaxies - 1 (2 points)



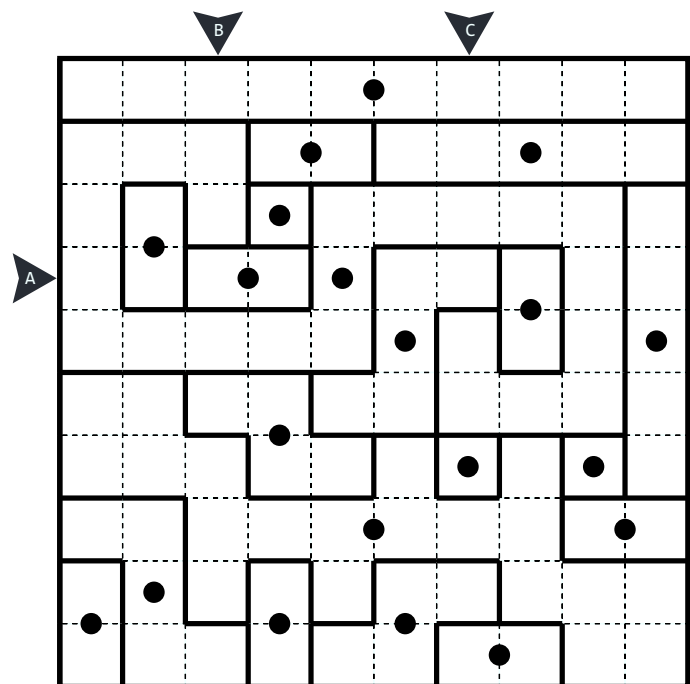
Spiral Galaxies - 2 (4 points)



Spiral Galaxies - 3 (6 points)



Spiral Galaxies - 4 (10 points)



Fillomino

2 + 2 + 5 + 5 points

- Divide the grid into different regions along the gridlines.
- No two regions of the same size (number of cells in the region) can touch each other by a side.
- Numbers in the grid indicate that the cell is part of a region of that size (number of cells in the region).
- A region can contain more than one given number.
- There can be regions without any given numbers also.

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

Fillomino - 1 (2 points)

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

Fillomino - 2 (2 points)

	3	3	14	14	14	14	14
	5	3	7	7	5	5	14
	5	5	8	7	5	5	14
	6	5	8	7	1	5	14
A	6	5	8	7	7	7	14
	6	8	8	8	8	8	14
	6	6	6	14	14	14	14

Fillomino - 3 (5 points)

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

Fillomino - 4 (5 points)

	8	8	8	7	5	7	5	3	3	3
	8	8	8	7	5	7	5	5	5	5
	1	8	8	7	5	7	7	7	7	7
	7	7	7	7	5	5	11	11	11	11
A	5	5	5	5	7	11	11	6	6	6
	3	3	3	5	7	7	11	6	7	7
	7	7	7	7	4	7	11	6	7	1
	6	6	7	3	4	7	11	6	7	4
	6	6	7	3	4	7	11	7	7	4
	6	6	7	3	4	7	11	7	4	4

Area Division

1 + 1 + 4 + 8 points

- Divide the grid into several regions along the gridlines.
- Each region has ALL the letters of the given range exactly once.
- Each letter must be part of exactly one region.

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

Area Division - 1 (1 point)

C	A	C	A	B	C
C	D	D	A	C	D
B	B	D	B	A	B
A	B	A	C	A	B
D	D	B	B	D	A
D	A	C	C	D	C

(Range: ABCD)

Area Division - 2 (1 point)

C	A	A	B	A	A
C	B	B	C	C	C
A	B	B	A	C	B
A	B	C	A	A	B
B	C	C	B	B	C
B	A	C	A	A	C

(Range: ABC)

Area Division - 3 (4 points)

E	F	G	E	F	E	E	F	F
F	G	F	F	G	F	G	F	G
F	E	G	G	E	E	G	E	E
G	F	E	G	F	E	E	G	E
F	G	E	G	F	G	F	F	F
E	G	E	F	E	G	E	G	G
G	G	E	F	F	E	E	G	E
E	G	F	G	F	G	F	E	F
E	F	G	E	E	F	F	G	G

(Range: EFG)

Area Division - 4 (8 points)

F	G	E	E	G	F	E	F	H	G
H	H	E	F	G	H	F	H	H	E
G	F	F	H	E	E	H	E	G	F
H	G	H	F	G	G	F	F	G	G
E	F	H	G	E	H	E	H	F	H
G	E	E	G	H	E	F	E	G	E
F	H	F	G	G	E	H	F	H	H
E	H	F	G	H	G	G	F	E	G
E	F	G	H	E	F	E	H	E	F
G	F	E	E	H	G	F	G	F	H

(Range: EFGH)

Shikaku

1 + 1 + 3 + 10 points

- Divide the grid into a number of non-overlapping rectangles, including squares, along the grid lines.
- Numbers in the grid indicate the size (number of cells) of the rectangle they are in.
- Each rectangle must contain exactly one given number.

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

Shikaku - 1 (1 point)

A 6x6 grid with numbers and markers. Marker A is on the left side of the second row from the bottom. Marker B is on the top side of the second column from the right. The numbers are: Row 1: (1,4)=6; Row 2: (2,3)=4, (2,5)=2; Row 3: (3,2)=5, (3,6)=3; Row 4: (4,2)=4, (4,5)=2; Row 5: (5,1)=2, (5,4)=5; Row 6: (6,2)=4, (6,3)=2, (6,5)=2; Row 7: (7,3)=4, (7,6)=4.

Shikaku - 2 (1 point)

A 6x6 grid with numbers and markers. Marker A is on the left side of the second row from the bottom. Marker B is on the top side of the second column from the right. The numbers are: Row 1: (1,1)=2, (1,5)=2; Row 2: (2,2)=5, (2,5)=5; Row 3: (3,3)=5, (3,6)=4; Row 4: (4,4)=4; Row 5: (5,1)=3, (5,5)=5; Row 6: (6,2)=4, (6,5)=2; Row 7: (7,3)=5, (7,6)=3.

Shikaku - 3 (3 points)

A 9x9 grid with numbers and markers. Marker A is on the left side of the second row from the bottom. Marker B is on the top side of the second column from the right. The numbers are: Row 1: (1,3)=4, (1,8)=2; Row 2: (2,4)=4, (2,7)=4; Row 3: (3,2)=4, (3,3)=2, (3,4)=2, (3,7)=2; Row 4: (4,1)=4, (4,2)=2, (4,3)=2, (4,5)=2, (4,9)=4; Row 5: (5,6)=6, (5,9)=4; Row 6: (6,1)=5, (6,4)=6; Row 7: (7,3)=4, (7,4)=4; Row 8: (8,2)=2, (8,5)=4, (8,9)=3; Row 9: (9,3)=3, (9,4)=2, (9,5)=2.

Shikaku - 4 (10 points)

A 10x10 grid with numbers and markers. Marker A is on the left side of the second row from the bottom. Marker B is on the top side of the second column from the right. Marker C is on the top side of the third column from the right. The numbers are: Row 1: (1,1)=6, (1,8)=4; Row 2: (2,2)=6, (2,7)=8; Row 3: (3,3)=6, (3,8)=2; Row 4: (4,6)=6, (4,9)=3; Row 5: (5,4)=4; Row 6: (6,1)=7, (6,5)=6; Row 7: (7,2)=5, (7,7)=6, (7,8)=4; Row 8: (8,3)=8, (8,9)=6; Row 9: (9,4)=7, (9,10)=6.

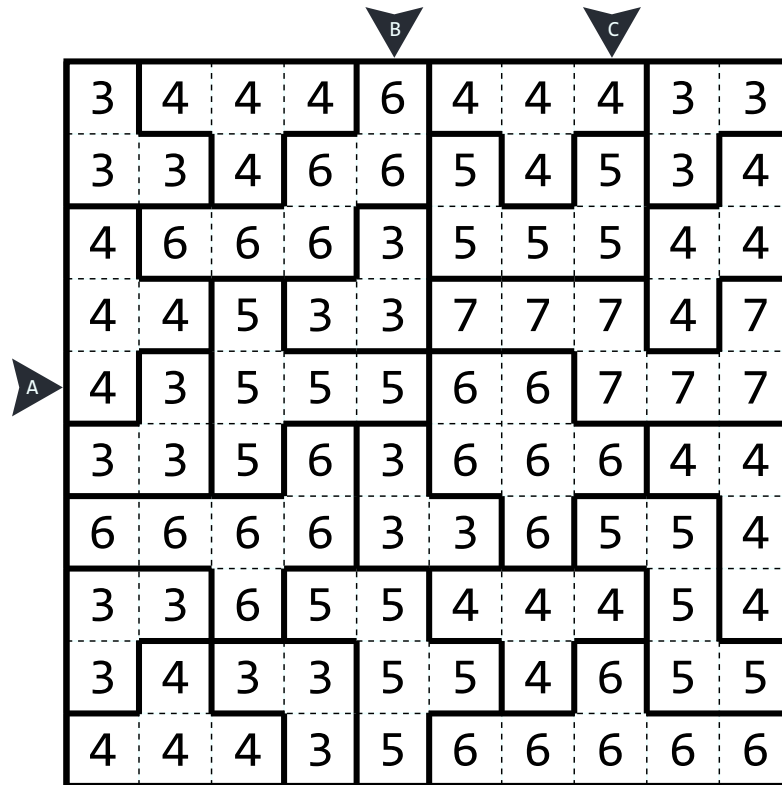
No-Rectangles Fillomino

7 points

- Apply rules of Fillomino.
- However, none of the regions can form a rectangle.

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

No-Rectangles Fillomino (7 points)



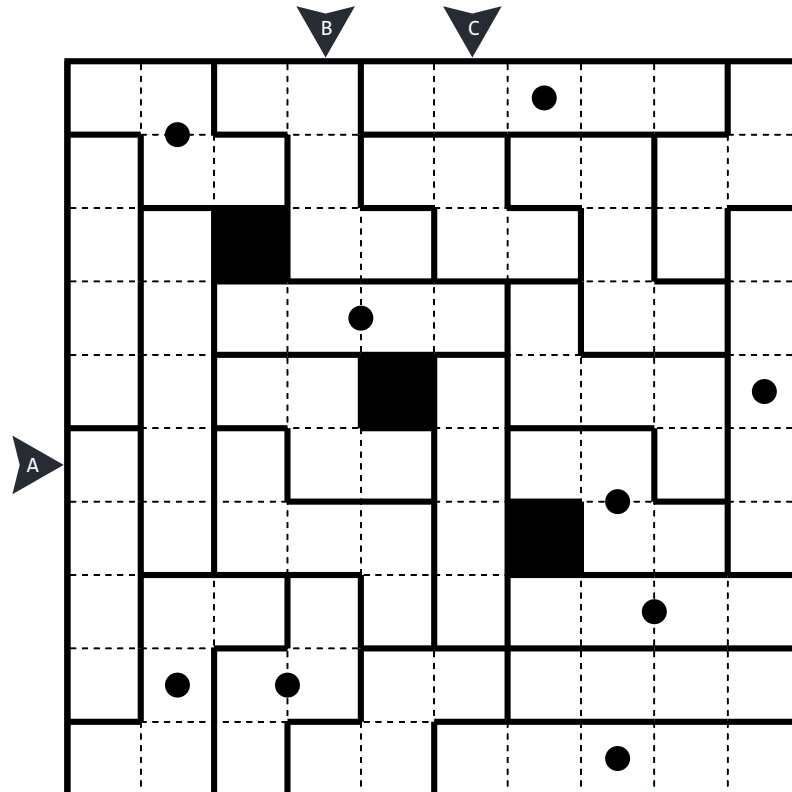
Spiral Galaxies 4/5

14 points

- Divide the grid into several regions along the gridlines such that each region has exactly 4 or 5 cells.
- Each region must be 180 degree symmetrical.
- If a region contains a black circle, then it is the point of symmetry.
- Regions may not be 2x2 squares.

Answer Key: For each marked row/column, write the number of cells that belong to different regions from left to right / top to bottom. Ignore the black cells for the answer key.

Spiral Galaxies 4/5 (14 points)



End of Test