Place one tent horizontally or vertically next to each tree. Tents do not touch each other, not even diagonally. The numbers outside the grid indicate the number of tents in that row or column.

Answer Key: Enter the column letter (grey letters at the top of the grid) for the leftmost tent in each row, from top to bottom. Enter $X$ if there are no tents in a row.

1 (1 point)


2 (2 points)


3 (2 points)


## 4-6 Skyscrapers

Fill in the grid with digits $1-N$ where $N$ is the size of the grid. Each row and column contains each digit exactly once. Each number inside the grid represents the height of a building. The clues outside of the grid indicate how many buildings can be seen when looking from that direction. Taller buildings block the view of smaller buildings.

Answer Key: Enter the contents of the marked rows/columns.

4 (1 point)


## 5 (3 points)


6 (7 points)


Draw a single closed loop that does not touch or cross itself. Digits in the grid indicate the amount of line segments of that cell used by the loop.

Answer Key: Enter the number of cells 'inside' the loop for each block inside the loop for marked rows (columns). Enter 0 for a row/column, if there are no cells inside the loop.


8 (4 points)


## 9 Slitherlink

Draw a single closed loop that does not touch or cross itself. Digits in the grid indicate the amount of line segments of that cell used by the loop.

Answer Key: Enter the number of cells 'inside' the loop for each block inside the loop for marked rows (columns). Enter 0 for a row/column, if there are no cells inside the loop.

## 9 (7 points)



The grid represents a lake and the numbers on the periphery represent anglers (fishermen). The fishes shown in the lake are such that every angler gets exactly one fish. The numbers indicate the length of the fish lines which are composed of horizontal and vertical line segments. Draw the fish lines starting from grid border such that no two of them cross or overlap each other.

Answer Key: Enter the length of the fish line to which each cell belongs, for the marked rows (columns). Use $X$ for empty cells. Use only the last digit for 2-digit numbers.

10 (3 points)


11 (4 points)


10

The grid represents a lake and the numbers on the periphery represent anglers (fishermen). The fishes shown in the lake are such that every angler gets exactly one fish. The numbers indicate the length of the fish lines which are composed of horizontal and vertical line segments. Draw the fish lines starting from grid border such that no two of them cross or overlap each other.

Answer Key: Enter the length of the fish line to which each cell belongs, for the marked rows (columns). Use $X$ for empty cells. Use only the last digit for 2-digit numbers.

## 12 (8 points)



Connect each of the numbered islands in the grid via horizontal and vertical bridges. Bridges are not allowed to cross each other. Each numbered island has that many bridges leading away from it, and at most two bridges are allowed to connect a pair of islands. There must be a sequence of bridges that links one given island to any other.

Answer Key: Enter contents of marked row/column (use 0 for no bridge, 1 for one bridge and 2 for two bridges).

13 (2 point)
(2)
(3)
(1) (2)
(2)
(3) (2)
(1) (2)
(2)
(2) (1)
(4) (2)
(2)
(3) (2)
(1)
(2)
(3)

- (2)
(3)
(3)
(4)
(2)
(1)
(3)
(4)
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(2)
(2)
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(1)
(2)
(3) (2)
(4)
(4)
(3)
- (2)
(1)
(4)
(3)
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(2)
(2)
(2)
(3)
(2)
(3)
(1)


## 15 Hashi

10 points
Connect each of the numbered islands in the grid via horizontal and vertical bridges. Bridges are not allowed to cross each other. Each numbered island has that many bridges leading away from it, and at most two bridges are allowed to connect a pair of islands. There must be a sequence of bridges that links one given island to any other.

Answer Key: Enter contents of marked row/column (use 0 for no bridge, 1 for one bridge and 2 for two bridges).

## 15 (10 points)

- (2)(2)
(1)
(3)
(2)
(2)
(1)
(2)
(6)
(3)
(2)
(3)
(4)
(4) (3)
(1)
(2)
(2)
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(3)
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(2)
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$>(2)$
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(2)
(2)
(4)
(6)
(2)
(2)
(1)
(4)
(5)
(6)
(2)
(4)


## 16-17 Magnets

The grid is made up of magnetic and non-magnetic plates. Each magnetic plate has 2 halves: positive (+) and negative (-). Halves with the same polarity cannot touch each other vertically / horizontally. The clues outside the grid indicate the number of magnetic halves with a particular polarity in each row/column. Not all outside clues may be given.
Answer Key: Enter the contents of marked rows/columns (use + for positive plate - for negative plate and $X$ for non-magnetic plate)

## 16 (2 points)



17 (6 points)


The grid is made up of magnetic and non-magnetic plates. Each magnetic plate has 2 halves: positive (+) and negative (-). Halves with the same polarity cannot touch each other vertically / horizontally. The clues outside the grid indicate the number of magnetic halves with a particular polarity in each row/column. Not all outside clues may be given.
Answer Key: Enter the contents of marked rows/columns (use + for positive plate - for negative plate and $X$ for non-magnetic plate)

18 (10 points)


Draw a single closed loop that does not touch or cross itself. Digits inside the grid indicate the amount of line segments of that cell used by the loop.

Loop segment lengths in any direction represent the height of a building. The skyscraper clues outside the grid indicate how many buildings can be seen when looking from that direction. Taller buildings block the view of smaller buildings as well as buildings of the same height. A ' 0 ' skyscraper clue means there are no loop segments in that direction.

Answer Key: Enter the lengths of inner cells for marked rows (columns) from left to right (top to bottom). Enter 0 for a row (column), if there are no inner cells in that row (column). Inner cells are cells located inside the loop.

## 19 (3 points)



20 (4 points)


21-22 Magnetic Fields
Place one magnetic plate horizontally or vertically next to each tree (orthogonally adjacent). Each magnetic plate has 2 halves: positive (+) and negative (-). Halves with the same polarity cannot touch each other vertically / horizontally. The clues outside the grid indicate the number of magnetic halves with a particular polarity in each row/column. Not all outside clues may be given.

Answer Key: Enter the contents of marked rows/columns (use + for positive plate - for negative plate, $X$ for non-magnetic plate or tree)


## 22 (10 points)



