

NAME:

POINTS:



11TH 24 HOURS PUZZLE CHAMPIONSHIP

26-28 NOVEMBER, 2010

HOTEL AMADEUS

BUDAPEST

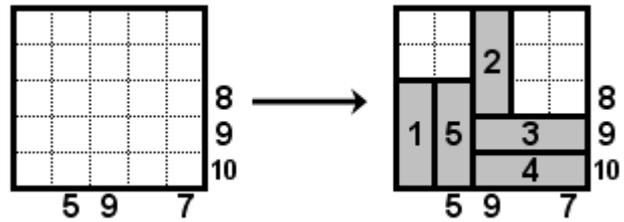
PUZZLES BY

ZOLTÁN HORVÁTH

Warm up	70 points (35 + 35)
Magnets	65 points
Battleships	70 points (30 + 40)
Loopfinder with walls	55 points (25 + 30)
44 cells	90 points (45 + 45)
Star battle	50 points
Japanese sums	80 points (35 + 45)
Number sea	45 points
Snail on the cube	80 points (40 + 40)
Tapa	50 points (20 + 30)
Tentsweeper	90 points (30 + 60)
From 1 to 10	30 points
Finnish snake	50 points (20 + 30)
Easy as ABC	40 points (20 + 20)
Population counting	65 points (25 + 40)
Skyscraper blocks	60 points (30 + 30)

Warm up

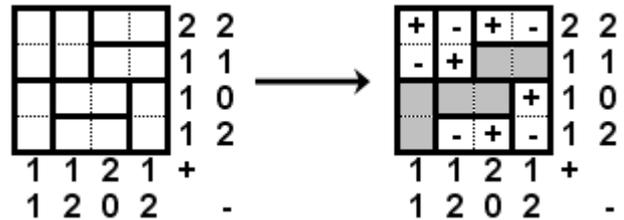
There are five 3×1 ships hidden in the grid below, each with a different number from 1 to 5. The numbers at the sides of the square give the sum of the numbers on all the ships in that row or column.



35 + 35 points

Magnets

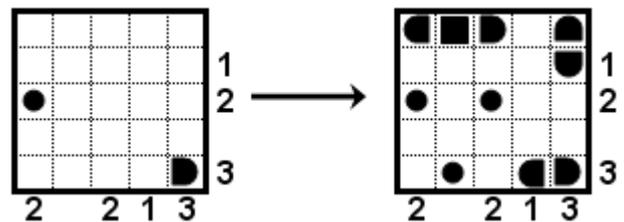
Place magnets in the diagram. Each magnet has a positive and a negative pole, and adjacent squares cannot contain the same pole. The numbers give the number of plus and minus poles in each row and column.



65 points

Battleships

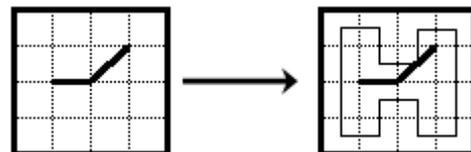
Place the given standard fleet into the diagram. The ships cannot touch each other, not even diagonally. The numbers next to the diagram indicate the number of squares occupied by ships in the corresponding row or column. Some parts of the ships are given.



30 + 40 points

Loopfinder with walls

Draw a single closed loop into the grid that travels only horizontally and vertically, passes all squares, and does not cross nor touch itself. The segments of the loop cannot cross the thick lines.



25 + 30 points

44 cells

Place all given dominoes and pentominoes in the grid. Pentominoes can be rotated and/or reflected. Connected dominoes must have same number on the touching side. Also the dominoes should form two different areas, separated by one or more pentominoes, **each including six dominoes**. The two areas can touch each other diagonally. Some parts of dominoes are already given.

The diagram shows the puzzle components and a solution. On the left, there are two pentominoes (a 2x3 block with one missing square and a cross shape) and two dominoes (one 1x2 and one 2x1). Below these are 12 dominoes with numbers: (0|6), (0|9), (5|9), (6|8), (7|8), (8|9), (0|7), (5|7), (6|7), (6|9), (8|8), (9|9). In the center is a 10x10 grid with some cells containing numbers: (1,1)=9, (1,4)=7, (2,2)=8, (2,10)=0, (3,3)=0, (3,5)=9, (4,3)=6. An arrow points to the right, showing the completed grid with dominoes and pentominoes placed. A grey box below the grid contains the text "45 + 45 points".

Star battle

Place two stars, the size of one square, in each row, each column and each black-edged part of the grid. The stars cannot touch each other not even diagonally.

The diagram shows a 4x4 grid with a 2x2 block of black-edged squares in the center. An arrow points to the right, showing the same grid with three stars placed in the white squares. The stars are located at (1,3), (2,1), and (3,4) in a 0-indexed coordinate system. A grey box below the grid contains the text "50 points".

Japanese sums

Place 1-5 digits into the grid so that no number appears more than once in any row or column. Numbers outside the grid reveal the sums of consecutive number blocks in the given row or column. Blocks must be separated by at least one empty square.

The diagram shows a 4x4 grid with numbers outside the grid indicating sums of consecutive blocks. The numbers are: (1,1)=7, (1,3)=3, (1,5)=5, (1,7)=7, (2,1)=1, (2,3)=3, (2,5)=4, (3,1)=4, (3,3)=1, (4,1)=2, (4,3)=4. An arrow points to the right, showing the completed grid with digits placed in the white squares. A grey box below the grid contains the text "35 + 45 points".

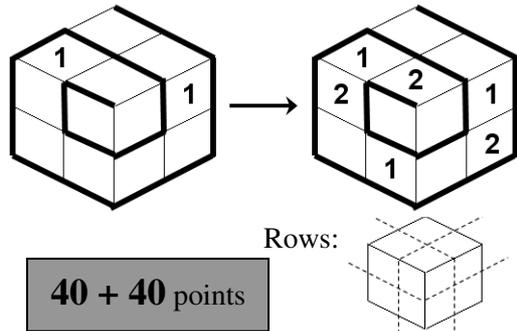
Number sea

Divide the figure into areas with a different size from 7 to 14. All given number have to get into the area, which size this number. The border of the areas can go just on the sides of the squares.

The diagram shows a 3x3 grid with numbers outside the grid: (1,1)=3, (1,3)=5, (2,1)=5. An arrow points to the right, showing the same grid with a border drawn around the squares. The border forms three areas: a 1x2 area containing the 3 and 5, a 2x2 area containing the 5, and a 1x2 area containing the 5. A grey box below the grid contains the text "45 points".

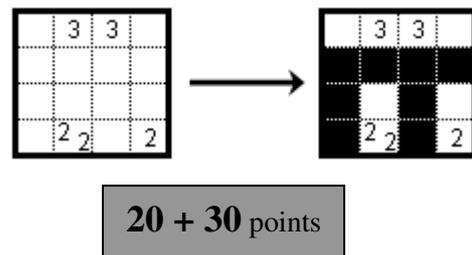
Snail on the cube

Fill the grid with the digits 1 to 4 so that all four numbers appear exactly once in each row. All rows pass through two sides. (See the example!) If you go in a spiral from the entrance to the center of the snail, the numbers should follow in order 1-2-3-4-1-...-4.



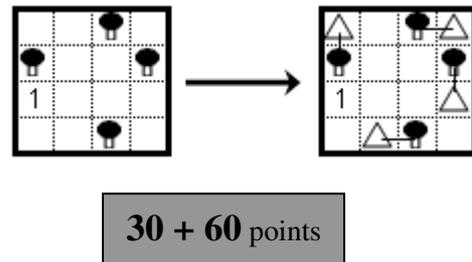
Tapa

Colour some cells to create a continuous shape that contains no 2x2 square. Numbers in a cell denote the lengths of the sequences of connected neighbouring coloured cells when looking at its (at most 8) direct neighbours only. If there is more than one number in a square, there must be at least one white cell between the coloured cell sequences. Cells containing a number should not be coloured.



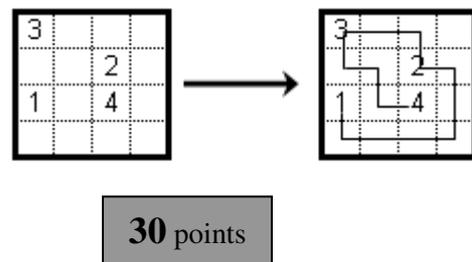
Tentsweeper

The figure shows a tent camp planted trees. Each tent is connected to one tree. Tents cannot touch each other, not even diagonally. A tent may be next to a tree even if it is not connected to it. The numbers in the grids indicates how many neighboring (horizontally, vertically or diagonally) cells contain a tent. Mark the place of the tents.



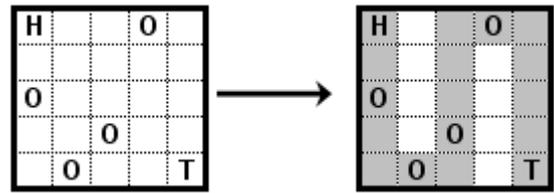
From 1 to 10

Connect the numbers from 1 to 10 in ascending order with a polyline that cannot overlap nor cross itself, and it cannot pass diagonally.



Finnish snake

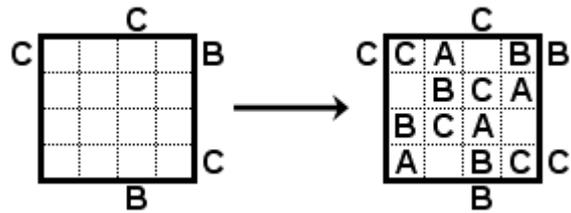
Draw a snake into the grid. The body of the snake cannot touch itself, not even diagonally. The head (H) and tail (T) are given, and the snake should go through all the dotted cells.



20 + 30 points

Easy as ABC

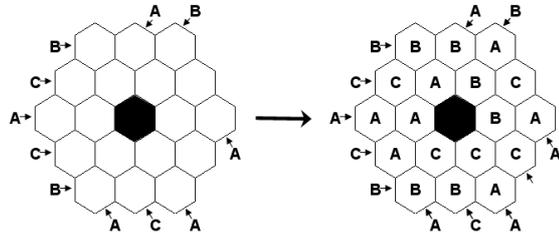
Put the letters A, B and C in the grid so that each letter appears exactly once in every row and column. Three squares in each row and column remain empty. The letters around the grid indicate the first letter that can be found by reading the appropriate row or column, beginning at the outside letter.



20 + 20 points

Population counting

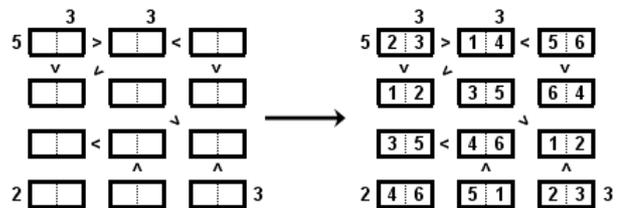
Place six pieces A, six pieces B and six pieces C letters to the grid so that the letters at side shows the most populated letters from that direction. If there is a letter X, it means that the number of X's is definitely higher than the number of any other letters.



25 + 40 points

Skyscraper blocks

Place digits 1-6 into the grid so that no digit repeated within a row/column. The digits outside the grid indicate the number of buildings that can be seen from the corresponding direction. The buildings form two-digit numbers and the relations between some numbers are shown with a greater/ less signs.



35 + 35 points