11TH 24 HOURS PUZZLE CHAMPIONSHIP

27-28 NOVEMBER 2010

INSTRUCTION BOOKLET

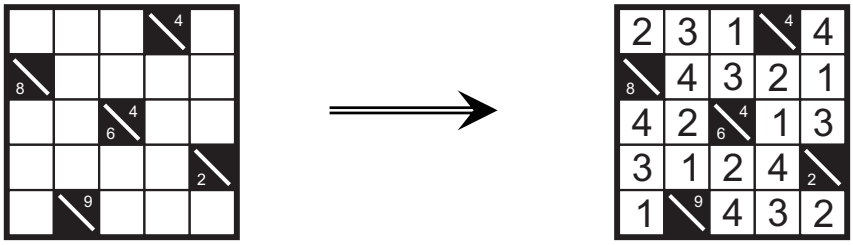
PUZZLES BY:

ZOLTÁN NÉMETH

SUDOKURO (30 POINTS)

Put numbers into the grid such that standard Kakuro rules hold, i.e. no word contains a digit twice and each word's sum equals to the already given sums. Moreover, each full line and full column contains each number between 1 and N exactly once (with N being the number of numbers in any given row or column, in the example N=4).

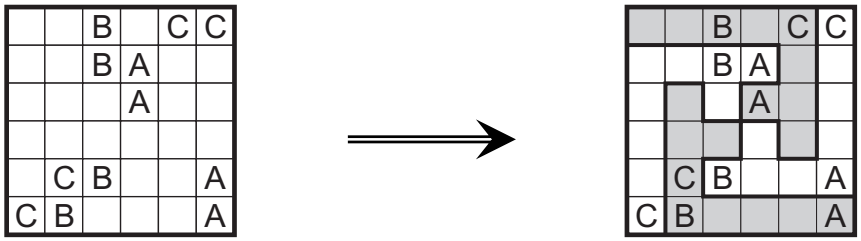
Example:



AB(CD) DIVISION
(6×10 POINTS + 20 BONUS FOR SOLVING ALL)

Divide each figure into several congruent parts so that each part contains each letter exactly once. Division lines are only allowed to follow the horizontal and vertical grid lines. Parts may be rotated but not reflected relative to each other.

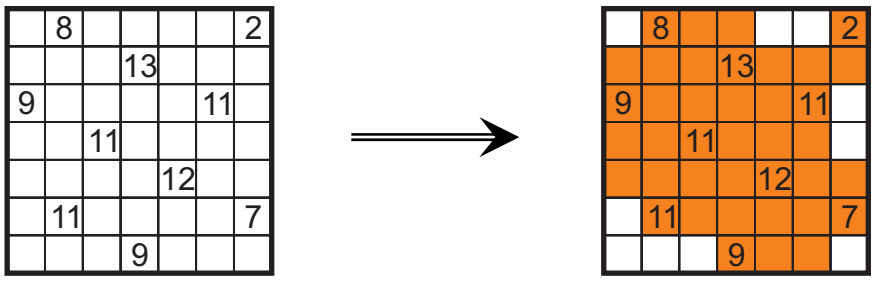
Example:



CAVE EXPEDITION (20+20+30+40+60 POINTS)

Select a connected set of squares – the cave – so that it contains all the numbers inside and each number reveals the number of cells that are visible from the given number's cell (which is included). The cave does not have an island inside it.

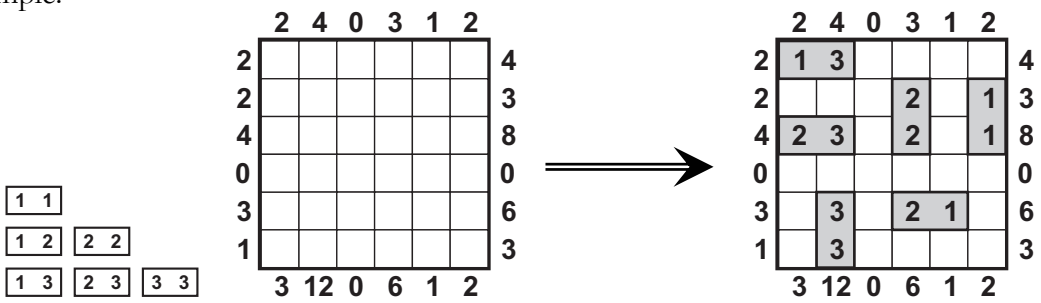
Example:



SWIMMING DOMINOES (30+30+40+40 POINTS)

Place the given domino fleet into the grid so that they do not touch each other, not even diagonally. Numbers on the left and the top indicate the number of half dominoes in any given row or column. Numbers on the right and the bottom indicate the sum of numbers on half dominoes in any given row or column.

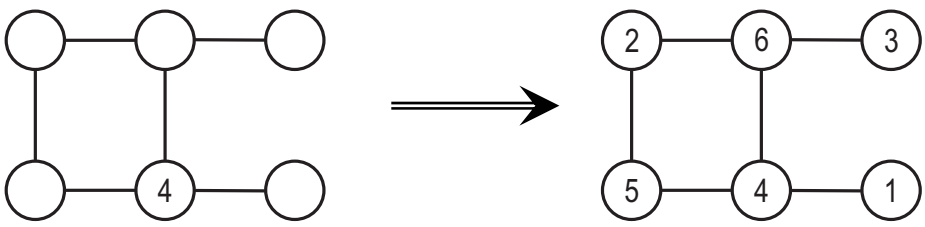
Example:



RUSSIAN NUMBER PUZZLE (30 POINTS)

Write numbers 1-N into the circles such that the difference between any two connected numbers is not less than three (3).

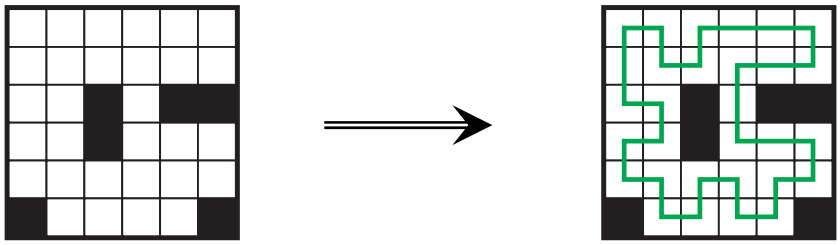
Example:



LOOPFINDER (30 POINTS)

Draw a single continuous loop into the grid that only travels horizontally or vertically, passes through all white squares but avoids the black ones.

Example:



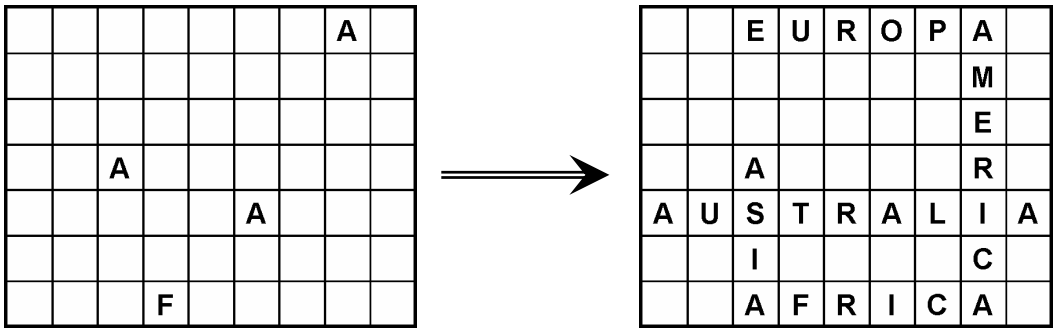
SCRABBLE (40+80 POINTS)

Place all the given words into the grid such that they become readable either vertically or horizontally. Words not on the list cannot appear, not even two-letter ones.

Some letters are given (in the first puzzle).

All „**P**" letters are given (in the second puzzle).

Example:

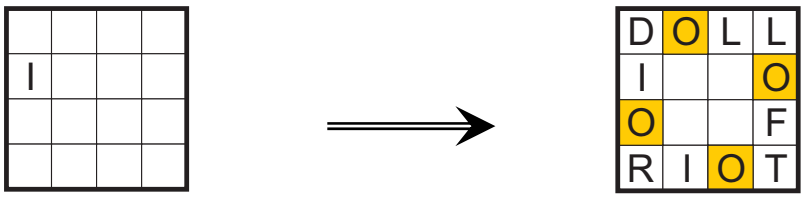


EUROPA, ASIA, AMERICA, AFRICA, AUSTRALIA

SCRABBLE WITH MAGIC LETTERS (40 POINTS)

Place all the given words into the grid such that they become readable either vertically or horizontally. Words not on the list cannot appear, not even two-letter ones. Some letters are given. The specified „magic letter" never appears more than once in any row or column.

Example:



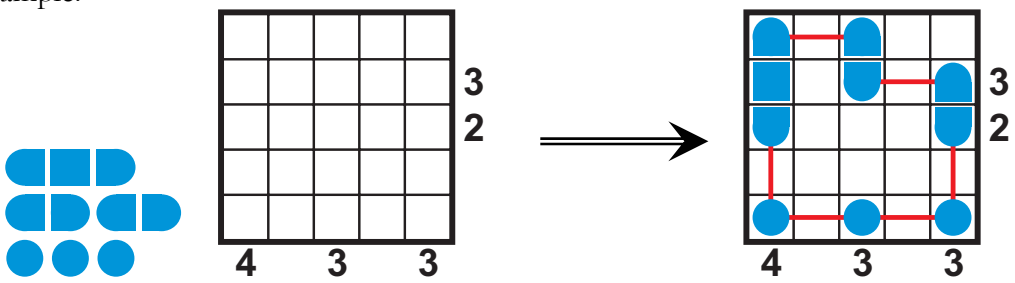
DI**O**R, D**O**LL, L**O**FT, RI**O**T (MAGIC LETTER: **O)**

FLEET STRING (30+40 POINTS)

Place the given fleet into the grid such that they do not touch each other, not even diagonally. Numbers around the grid indicate the number of ship parts in the respective rows/columns.

Ships can be arranged into a closed string containing each of them once such that the back end of each ship is just one empty cell away from the next ship's front end. *In other words: there exists a single closed loop that travels through all cells of each ship exactly once and passes through exactly one empty cell between any two consecutive ships.*

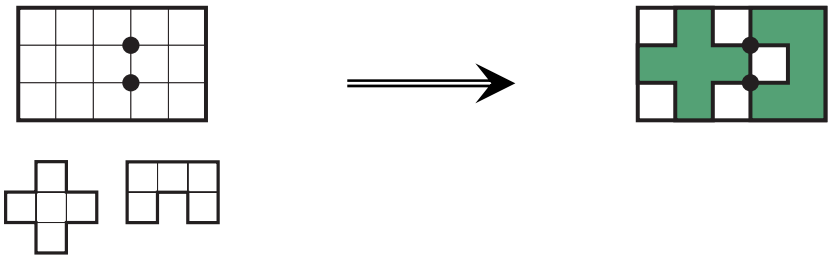
Example:



PENTA BLOKUS (30+50 POINTS)

Place the given pentominoes into the grid such that they do not touch each other side by side. They can touch each other diagonally though: every point where such a diagonal touch occurs is marked with a dot. Pentominoes may be rotated and/or reflected.

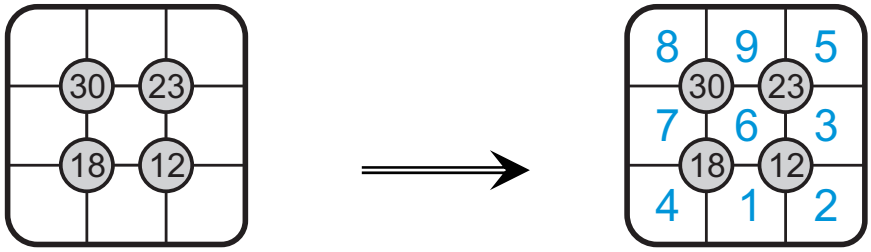
Example:



Number Table (40 points)

Place numbers 1-16 into the grid such that the sum of numbers around each circle equals to the number shown in that circle.

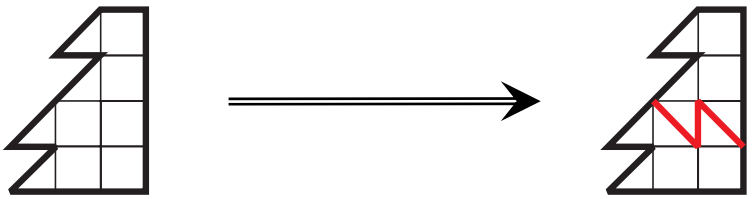
Example:



Dissection (40+40 points)

Divide the given shapes into two congruent parts. Division lines may include grid lines and unit square main diagonals. Resulting parts may be rotated or reflected relative to each other.

Example:



Triple Products (30+60 points)

Enter numbers 1-12 (1-18) into the grid such that each row, each column and each main diagonal contains exactly three numbers. The product of (some of) such number triplets are given.

Example: