



INSTRUCTION BOOKLET

Updated version



14th World Puzzle Championship

PART 1

10th October, 2005

10:10 – 10:40 (30 min.)

Maximum score: 400 points

Eger Grand Prix

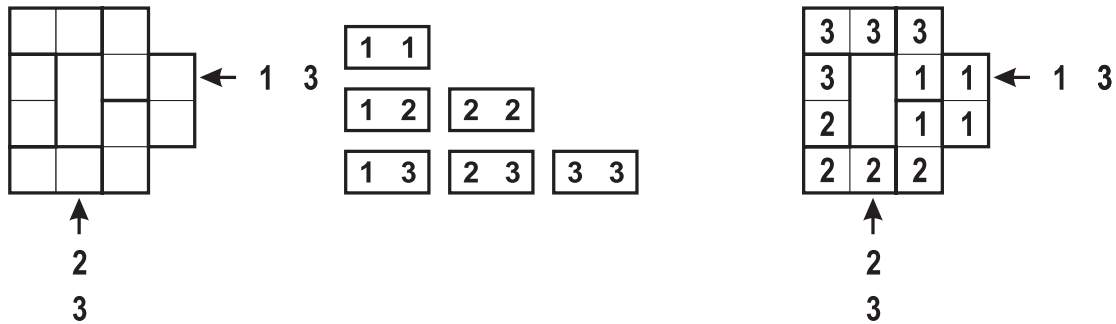
Domino castle	60
Easy as EGER	20 (5+15)
Password path	50 (15+35)
Magic password path	20
Magic square	25
Magic snail	35 (10+25)
Dissection	25
Skyscrapers varia	25
Maze-a-Pix	30
EGER Battleships	60 (20+40)
EGER Pathfinder	50 (15+35)

NOTE: *Warning! There are two new puzzle type in this round.*

PUZZLE 1 (60)

Domino castle

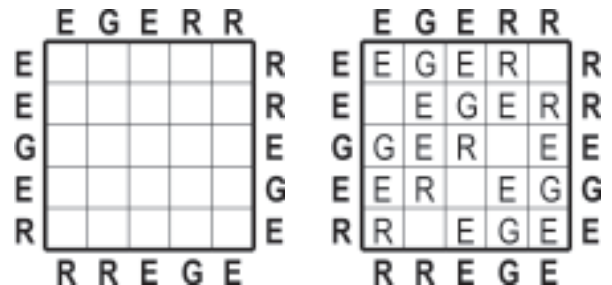
The figure shows a castle that was built up of the given set of dominoes. Unfortunately the numbers have been erased. Numbers around the figure reveal what numbers are there on the domino halves in the given row or column. Find out the original arrangement.



PUZZLE 2 (5+15)

Easy as EGER

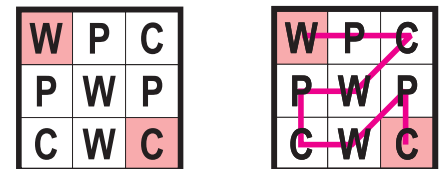
Fill in the grid so that in each row and column every letter of the word EGER appears exactly once. Letters around the grid indicate the 1st letter visible from the given direction.



PUZZLE 3 (15+35)

Password path

Find a path from the top left corner to the bottom right corner. The path can travel horizontally, vertically or diagonally and it passes through all squares but never crosses itself. Reading the letters in the order they are visited gives the repetition of the letters of the given password.



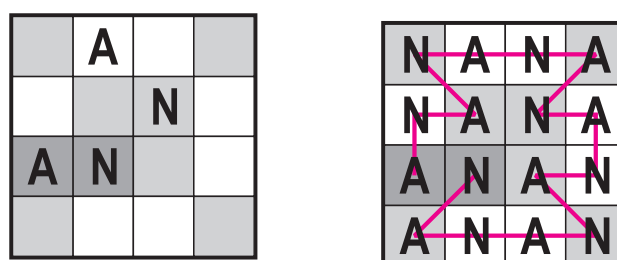
Password: WPC

PUZZLE 4 (20)

Magic password path

This puzzle is a combination of puzzles "Diagonal Magic Square" and "Password Path". Firstly, fill in the empty squares so that each letter of the password is contained exactly once by each row, column and main diagonal. Then, using the solution, find a path from the top left corner to the bottom right corner. The path can contain horizontal, vertical or diagonal segments and it passes all squares in the grid. Reading the letters in the order they are visited gives the repetition of the letters of the password.

In the example (the password is NANA) the path travels between the two dark grey squares instead. **NOTE:** The path cannot cross itself.



PUZZLE 5 (25)

Fill in the grid so that each row, column and 3x3 area contains each number between 1-9 exactly once.

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

Magic squares

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

PUZZLE 6 (10+25)

Write letters into the grid so that in each row and column the letters of the word EGER appear exactly once. Along the snail, from outside towards the middle, the order of the letters must be E-G-E-R-E-G-E-R...-E-G-E-R.

	G			
				R

E	G	E	R	
G	E	R		E
E	R		E	G
R		E	G	E
	E	G	E	R

Magic snail

PUZZLE 7 (25)

Divide the grid into four congruent shapes, each containing all letters of the word EGER exactly once. In the example the word AB is used.

NOTE: The pieces may be rotated, but not mirrored.

This example has more solution.

		A	
	B	B	B
	A	A	
A	B		

		A	
	B	B	B
	A	A	
A	B		

Dissection

PUZZLE 8 (25)

Fill in the grid with numbers between 1 and 9 so that no number is repeated in any of the words. Every number is treated as a skyscraper whose height is equal to the number in the square. Definitions of the words reveal the sum of the heights of the skyscrapers in the word that are visible from the point where the definition is written.

	3	4	2	
3				5
5				4
3				
	6	5		

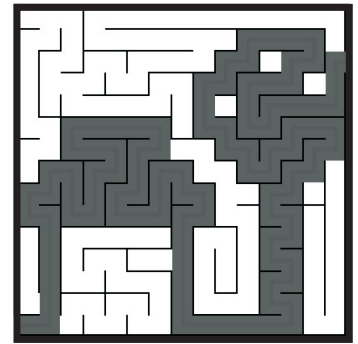
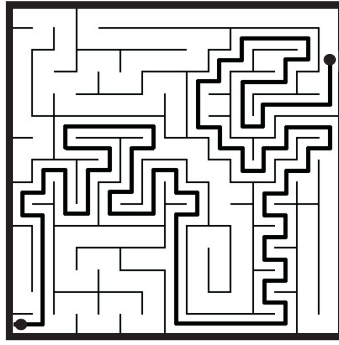
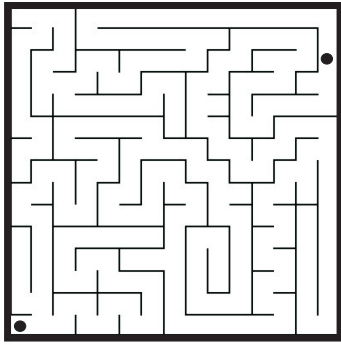
Skyscrapers varia

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

PUZZLE 9 (30)

Maze-a-Pix

Find a continuous path between the two given points in the maze! When your path is completed, all squares in the path are painted to show the picture. (It is enough to draw the path into the grid.)

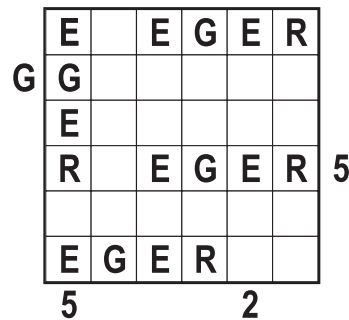
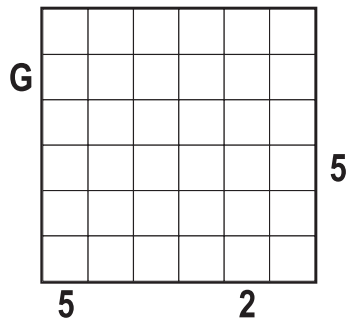


PUZZLE 10 (20+40)

EGER Battleships

Put some battleships of length four into the grid. Each battleship has the word EGER written on it either from left to right (if the ship is horizontal) or from the top to the bottom (if the ship is vertical).

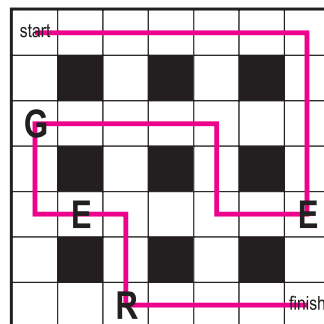
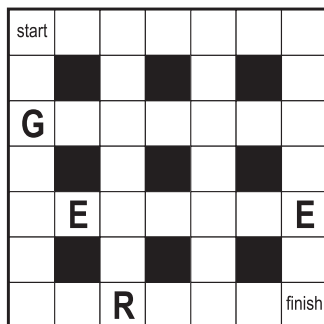
Numbers at the bottom and right side indicate the number of letters in the given row or column. Letters shown at the top and left side indicate that there is at least one such letter but there are no other letters in the given row or column.



PUZZLE 11 (15+35)

EGER Pathfinder

Find a path from the start to the finish that never crosses a junction twice. The path travels through all squares that contain a letter. Letters must be visited in an order such that the word EGER is repeated: E-G-E-R-E-G-....-E-G-E-R.





14th World Puzzle Championship

PART 2

10th October, 2005

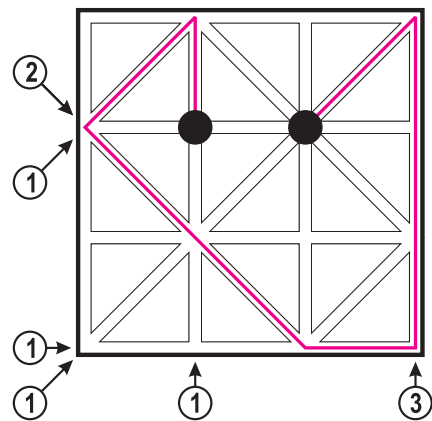
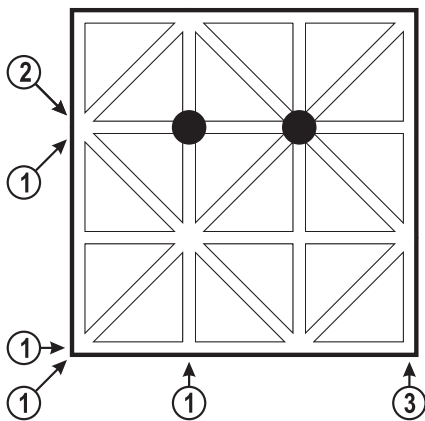
10:50 – 11:20 (30 min.)

Maximum score: 250 points + bonus

Streets (10+15+15+20+25+40+50+75)

Find a path in each maze that connects the two marked junctions. No two fragments of the path may be along the same straight. Numbers around the grid reveal the length of the fragment in the direction indicated. All fragment has its length shown.

NOTE: The path cannot cross itself, not even at one of the end points.



Bonus points for the 10 fastest puzzlers (with no mistakes):
150, 125, 100, 90, 80, 70, 60, 50, 40, 30.



14th World Puzzle Championship

PART 3

TEAM ROUND

10th October, 2005

11:40 – 12:10 (30 min.)

Maximum score: 700 points + bonus

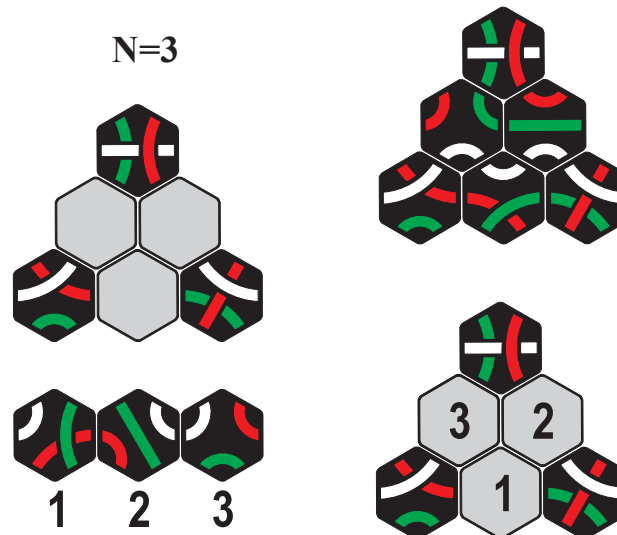
Tantrix (30+30+40+40+60+120+180+200)

Your task is to arrange the hexagonal tiles so that the colours match. Tiles are numbered on their backsides. If a puzzle has N empty hexagons to be filled in, you will use tiles 1- N . On the submission sheet you have to fill in only the tile numbers; you do not need to indicate the orientation of the tiles.

NOTE: E.g. $N=5$ means that you have to use the tiles numbered from 1 to 5.

Every team will get four copies from each puzzle, but you only have to submit each puzzle once in the provided envelope. If there are two **different** solutions for any one puzzle in the envelope, you will get no points for that puzzle. There is no extra submission sheet, please use the puzzle sheets for submission.

Please, do not forget to have your Tantrix-set ready that you get at the registration.



Bonus points for the 5 fastest teams (with no mistake)

300, 250, 200, 150, 100



14th World Puzzle Championship

PART 4

10th October, 2005

14:30 – 15:00 (30 min.)

Maximum score: 250 points + bonus

Evergreens

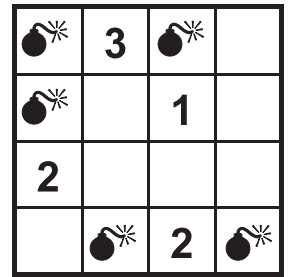
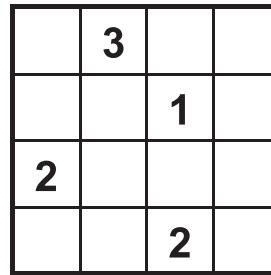
Minesweeper	30
Loopfinder	40
Tents	50
Four winds	60
Islands	70

**Bonus points for the 10 fastest puzzlers (with no mistakes):
150, 125, 100, 90, 80, 70, 60, 50, 40, 30.**

PUZZLE 1 (30)

Minesweeper

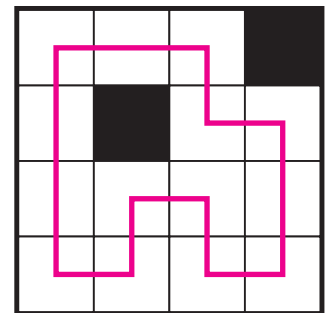
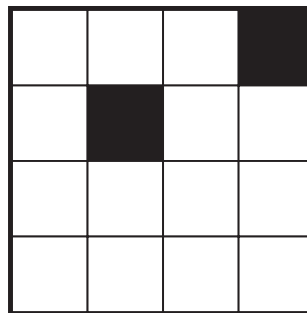
Some of the empty squares contain a mine. Find their position knowing that each number reveals the number of mines it is at least diagonally touching. The number of mines is not specified.



PUZZLE 2 (40)

Loopfinder

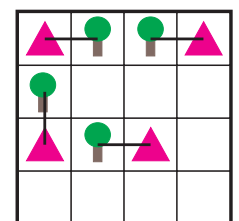
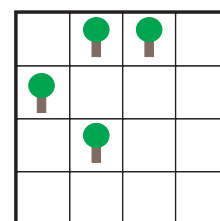
Draw a single continuous loop that only travels horizontally or vertically, passes through all white squares but no black one, and never crosses or overlaps itself.



PUZZLE 3 (50)

Tents

Each tree in the figure has a tent attached to it that has to be in an edge-adjacent square. Tents do not touch each other, not even diagonally. Find out their positions.



PUZZLE 4 (60)

Four winds

One or more horizontal or vertical lines are drawn from each numbered square. Lines cannot cross other numbered squares. Each number indicates how many squares are connected by its lines; the numbered squares themselves are not counted. No lines overlap or intersect each other, and each empty square is covered by exactly one line.

	4			
			6	
		1		4
6				
	2			4
		7		

	4			
			6	
		1		4
6				
	2			4
		7		

PUZZLE 5 (70)

Islands

Each number in the grid is part of an island. The number represents the number of squares in the island, including the numbered square itself. The squares that make up an island must be connected horizontally and/or vertically. Islands cannot touch each other horizontally or vertically; however, they can touch diagonally. The remaining squares represent water and must be painted black. The water squares form a completely connected path around the islands, where successive squares share an edge either horizontally and vertically. No 2x2 region can be completely covered by water.

NOTE: No island can contain more than one number.

	2		2	
		3		
	5			

	2		2	
		3		
	5			



14th World Puzzle Championship

PART 5

10th October, 2005

15:20 – 16:50 (90 min.)

Maximum score: 1000 points

Hungarian style

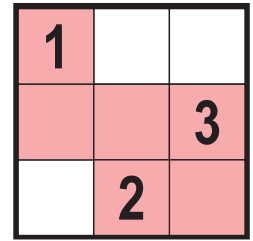
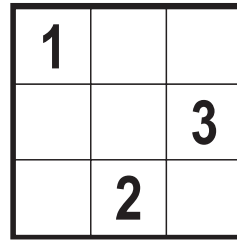
Cave	60 (15+20+25)
Triangles math	25 (10+15)
Half dominoes	100 (15+40+45)
S-POLICY	90 (20+30+40)
Easy as ABC crossword	35 (10+25)
Coral finder	75 (10+25+40)
Tiger in the woods	60 (10+20+30)
Hexa seven	80 (5+30+45)
Moby Dick	45 (15+30)
Persian number puzzle	55 (10+20+25)
Dotted snake	85 (15+30+40)
Tent sectors	30 (10+20)
Breakpoints	40 (10+10+20)
Swimming dominoes	60 (25+35)
Simple loop finder	45 (5+15+25)
Sea serpent	40 (15+25)
Coins	75 (10+25+40)

PUZZLE 1 (15+20+25)

Cave

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 NOT included).

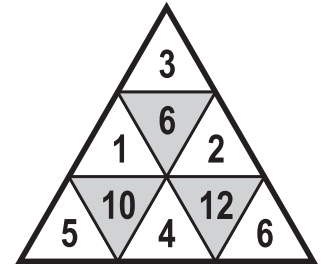
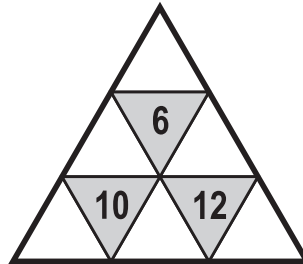
NOTE: The cave cannot have an island inside it.



PUZZLE 2 (10+15)

Triangle math

Place the numbers 1-10 into the white triangles, once each, so that the sum of any three numbers surrounding a grey triangle equals to the number written into the grey triangle.

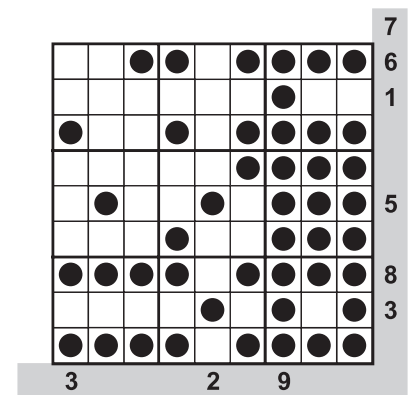
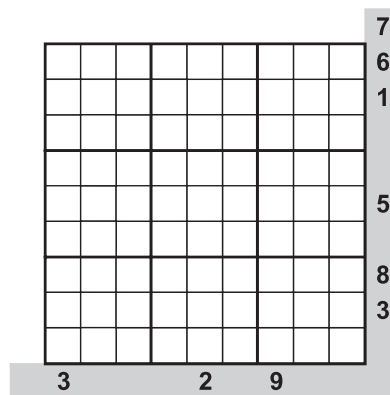


PUZZLE 3 (15+40+45)

Half dominoes

Put all the nine half dominoes into the puzzle grid so that the sum of the dots in certain rows, columns, or diagonals be identical with the given numbers assigned to that certain row, column or diagonal. The pieces may not be rotated or mirrored.

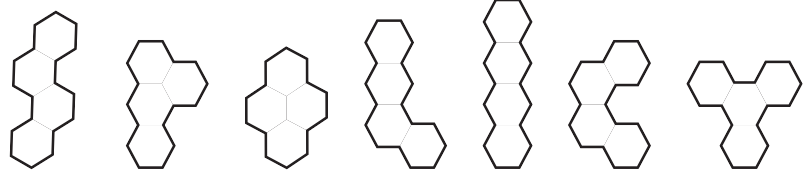
NOTE: Half dominoes do not overlap each other.



PUZZLE 4 (20+30+40)

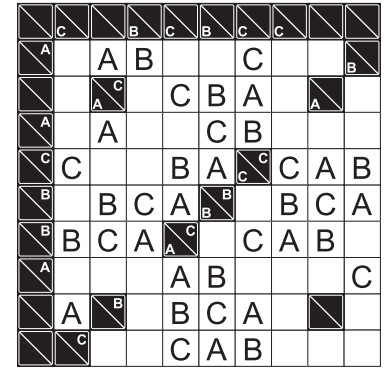
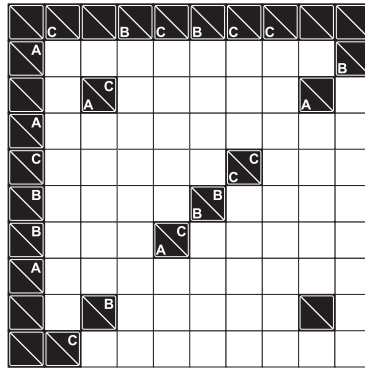
S-POLICY

Place the given shapes into the grid so that they do not overlap each other and no black hexagon is covered. Shapes may be rotated but not mirrored.



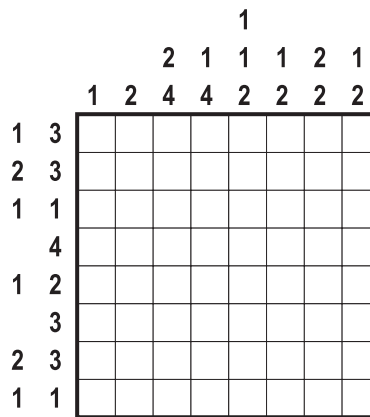
PUZZLE 5 (10+25)

Fill in the letters A, B and C into the grid so that in each word there is exactly one of each. The definition of a word reveals its first (non-empty) letter.

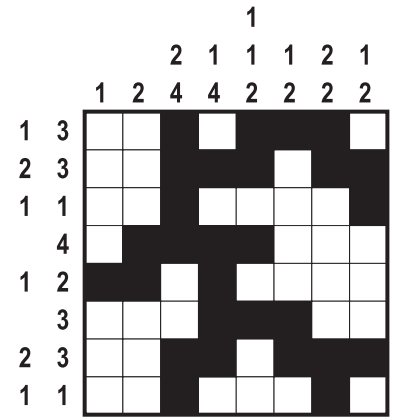


PUZZLE 6 (10+25+40)

Select a connected set of squares - the coral - so that it does not touch itself, not even diagonally. Numbers outside the grid indicate the lengths of consecutive parts of the coral in the given row or column (similarly as in the "Paint it black" puzzles). However, numbers belonging to the same row or column are in increasing order and not in the order they appear. No 2x2 area may be covered by the coral. **NOTE:** The coral can have no island inside itself.



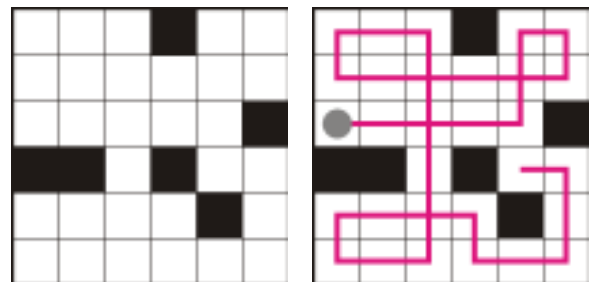
Coral finder



PUZZLE 7 (10+20+30)

Draw a path into the figure that starts from an arbitrary white square, only travels horizontally and vertically, and passes through all white squares. The path may cross itself but it may not overlap itself. The path is only allowed to take a turn after hitting either a black square or a wall. The starting square may not be visited later, and the finishing square cannot have been visited before. **NOTE:** The last part of the line should hit either a wall or a black square.

Tiger in the woods



PUZZLE 8 (5+30+45)

Write numbers between 1 and 7 into the white hexagons so that the neighbours of each white hexagon are all different. Neighbours of a black square are not necessarily different.



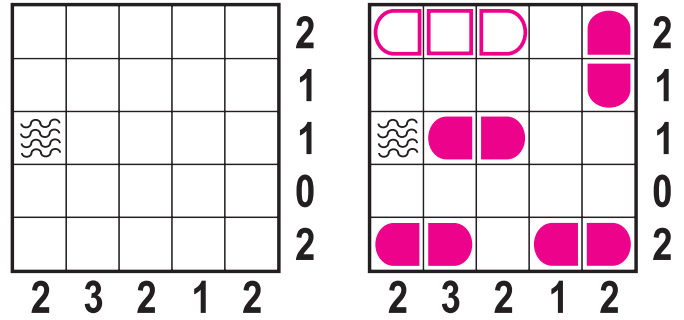
Hexa seven



PUZZLE 9 (15+30)

Moby Dick

The grid represents the ocean and there are several whales in it. One of them is a giant white one, represented as an 1x3 area. The remainings are represented as 1x2 areas. The whales do not touch each other, not even diagonally, and no part of them may be in squares marked with water. Numbers around the grid reveal the number of whales in the given row or column. After finding all the whales, you do not need to mark Moby Dick (like we did).

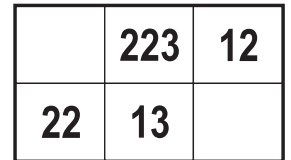


PUZZLE 10 (10+20+25)

Persian number puzzle

Write numbers into the grid so that the numbers that can be read in the two rows and three columns are given. Squares may remain empty or contain multiple digits.

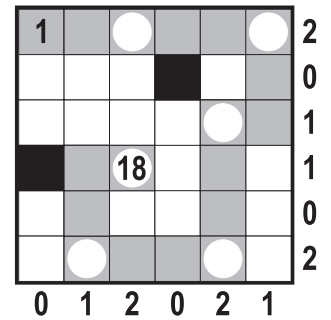
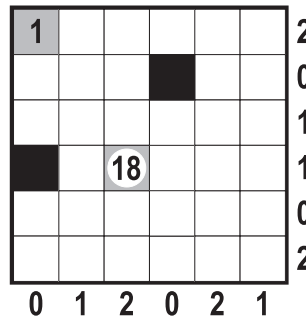
12
22
2213
22312
22313



PUZZLE 11 (15+30+40)

Dotted snake

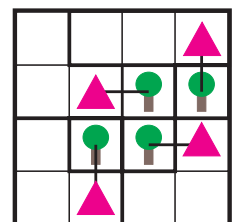
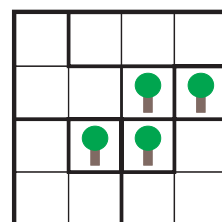
There is a 45 units long snake hiding in the grid. The body of the snake cannot touch itself, not even diagonally. Every 3rd square (3, 6, 9 etc.) of the snake has a dot on it. Numbers outside the grid reveal how many dots of the snake are in the corresponding row or column. The head, middle and tail squares of the snake are given. The black squares are not part of the snake. **NOTE:** The first snake is just 31 units long.



PUZZLE 12 (10+20)

Tent sectors

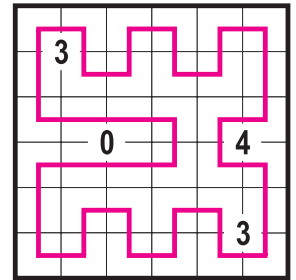
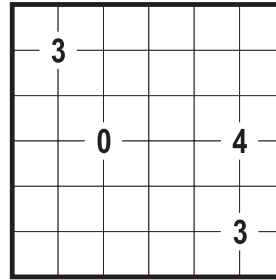
Each tree in the figure has a tent attached to it that has to be in an edge-adjacent square. Tents do not touch each other, not even diagonally. Every sector (marked by thick lines) contains the same number of tents.



PUZZLE 13 (10+10+20)

Breakpoints

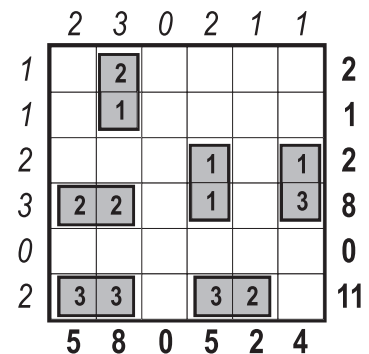
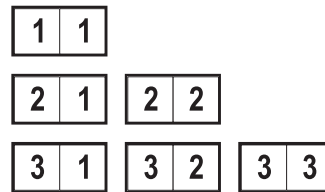
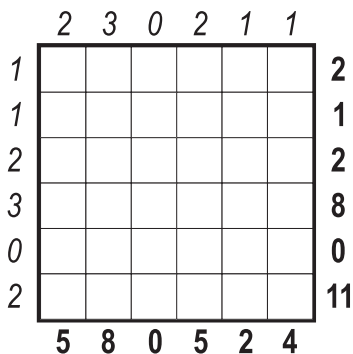
Draw a single closed loop into the grid that travels only horizontally and vertically, passes all squares, and does not cross nor touch itself. Numbers indicate how many turns are made by the loop in the surrounding four squares.



PUZZLE 14 (25+35)

Swimming dominoes

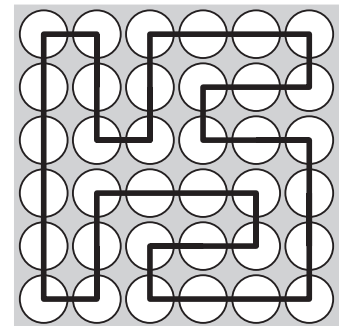
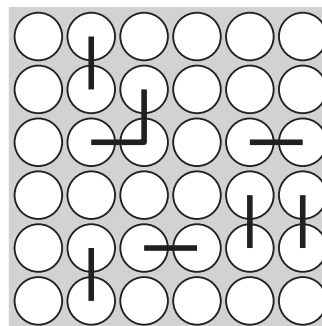
Place the given set of dominoes into the grid so that no two dominoes touch each other, not even diagonally. Numbers on the top and left reveal the number of different dominoes in the given row or column. Numbers on the bottom and right reveal the sum of the numbers that are in the given row or column.



PUZZLE 15 (5+15+25)

Simple loop finder

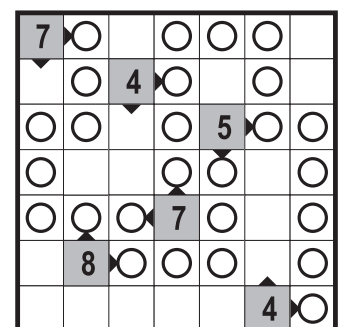
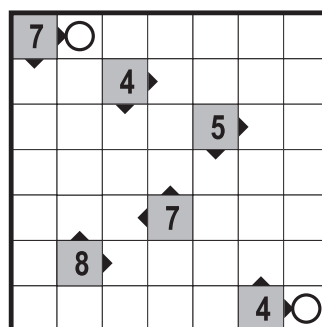
Draw a single closed loop into the grid that only travels horizontally or vertically, passes all squares, and does not cross or overlap itself. The loop must contain the given fragments.



PUZZLE 16 (15+25)

Sea serpent

Draw a serpent into the grid. Its body may touch itself but only diagonally. The squares with numbers represent bidirectional lighthouses; each number reveals the number of squares of the serpent that are visible from the lighthouse in the directions that its arrows are pointing to. The positions of the serpent's head and tail are given.



PUZZLE 17 (10+25+40)

Coins

Place a coin into each square of the grid. Numbers around the grid reveal the sum of the coin amounts in the given row or column. Possible coin denominations are: 5, 2, 1, 0.50, 0.20, 0.10. You can use as many of each denomination as you like (but only one coin into each square).

			6.50
			3.10
			1.70
3.50	7.00	0.80	

1	5	0.50	6.50
2	1	0.10	3.10
0.50	1	0.20	1.70
3.50	7.00	0.80	



14th World Puzzle Championship

PART 6

10th October, 2005

17:00 – 17:30 (30 min.)

Maximum score: 250 points + bonus

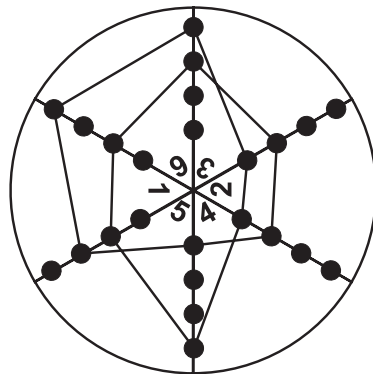
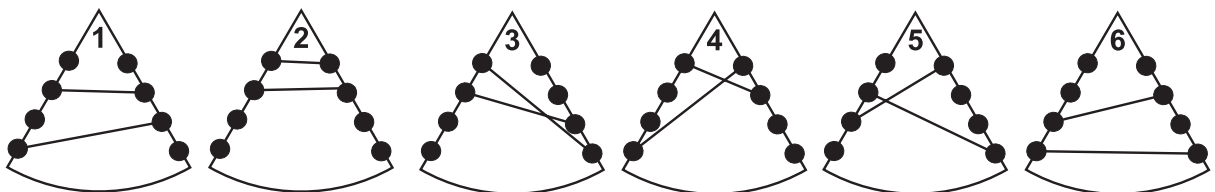
Spider web

Arrange the given pieces of paper so that the line fragments form a single closed loop. The paper pieces will have line fragments on both of their sides; it is part of the puzzle to find out which side of each paper should be facing upwards.

During this round it will be possible to ask for help. The organiser will show which side of each paper should be used. However, if you use this opportunity, you will only get half of the points for a correct solution. Moreover, you may not get any bonus points if you used the help.

Upon completion of the puzzle, you have to put down the numbers according to the order you have arranged the pieces. Start with 1 and proceed clockwise.

NOTE: The two sides of the paper pieces have a different colour but you do not need to write the colour of each piece, just its number. If you ask for a help, you will be given a paper telling which side of each paper should be facing upwards.



Solution: 1-6-3-2-4-5

Bonus points for the 10 fastest puzzlers (with no mistake):
150, 125, 100, 90, 80, 70, 60, 50, 40, 30.



14th World Puzzle Championship

PART 7

11th October, 2005

9:30 – 10:30 (60 min.)

Maximum score: 700 points

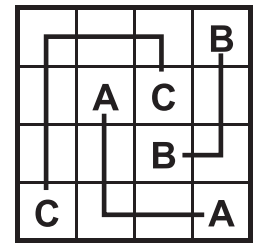
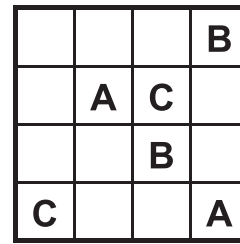
Classics

ABC connection	45 (10+15+20)
Anglers	40 (15+25)
Diagonally magic squares	40 (5+15+20)
Classic maze	35 (10+25)
Underground	30
Hexa islands	60 (10+20+30)
Sign of four	80 (10+25+45)
Arrows	65 (15+20+30)
Parthenon	25
Russian number puzzle	25
No four in a row	55 (15+40)
Antimagical hexa	60 (25+35)
Dissections	55 (20+35)
Area occupation	45 (10+15+20)
Thermometers	40 (10+30)

PUZZLE 1 (10+15+20)

ABC connection

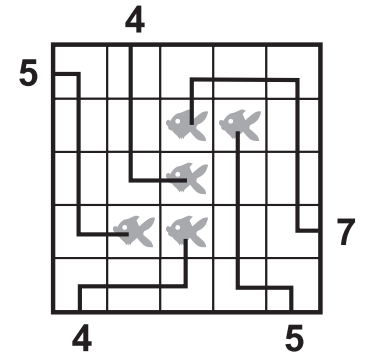
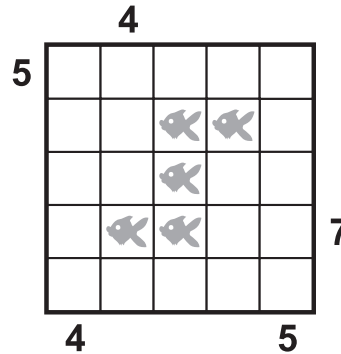
Connect the identical letters with lines that are only horizontal and vertical and always connect the centers of adjacent squares.



PUZZLE 2 (15+25)

Anglers

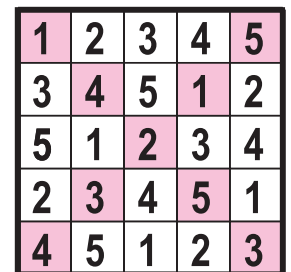
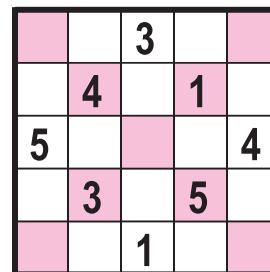
The grid represents a lake and some squares contain a fish. There are a few anglers sitting around the lake, each of whom have caught a fish. The cords only travel horizontally or vertically and do not cross or overlap themselves or each other. Numbers reveal the length of the cord that connects the given angler with his fish.



PUZZLE 3 (5+15+20)

Diagonally magic squares

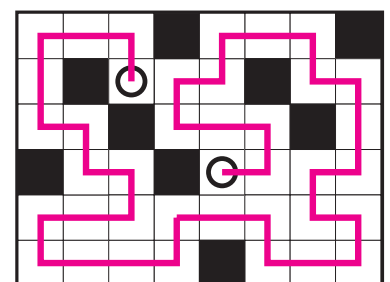
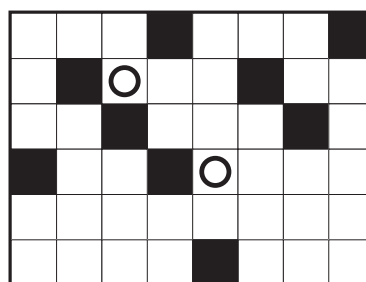
Fill in the grid so that each row, column and diagonal contains each number between 1-5 (in the bigger one 1-7) exactly once.



PUZZLE 4 (10+25)

Classic maze

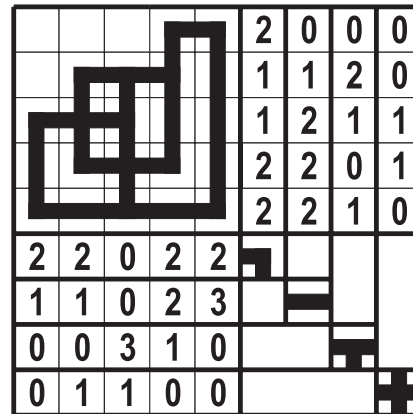
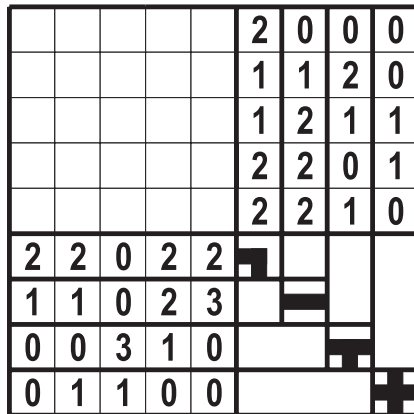
Connect the two circles with a line that only travels horizontally and vertically and never crosses nor overlaps itself. A correct solution will see all white squares used up.



PUZZLE 5 (30)

Underground

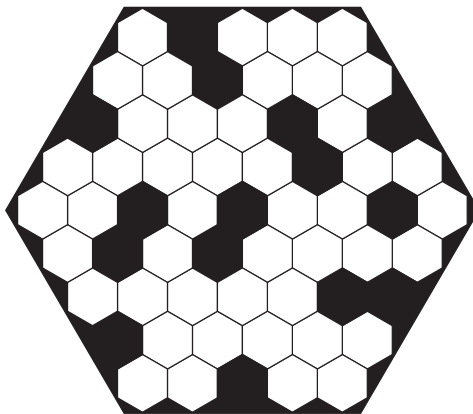
Your task is to reconstruct a subway network in this puzzle. Subway lines do not reach the boundary of the figure and there is no dead end in the network. Numbers next to rows and below the columns of the figure reveal how many instances of the given shape are there in the corresponding row or column. Shapes may be rotated.



PUZZLE 6 (10+20+30)

Hexa islands

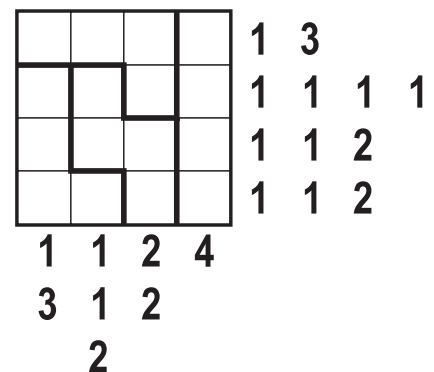
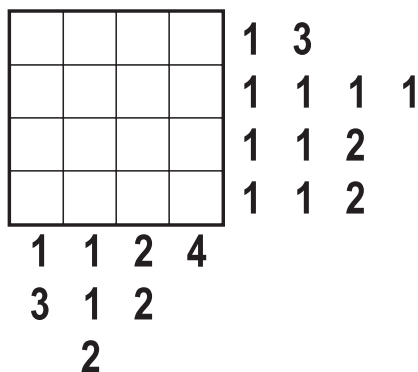
Paint a few more hexagons black to obtain six white areas that do not touch each other and each consists of six connected white hexagons.



PUZZLE 7 (10+25+45)

Sign of four

Divide the grid into connected pieces consisting of four squares apiece. Numbers outside the grid reveal the size of groups belonging to the same piece in the given row or column. However, numbers are shown in increasing order, not in the order the pieces appear.



PUZZLE 8 (15+20+30)

Draw arrows into the empty squares around the grid. An arrow may be horizontal, vertical or diagonal. Every number inside the grid is equal to the number of arrows that are pointing to it.
NOTE: All arrows point to at least one number.

	4	3	3	0	
	7	3	3	2	
	5	3	3	2	
	3	1	3	0	

Arrows

	↓	↙	↘	↘	
↘	4	3	3	0	↙
↗	7	3	3	2	←
↗	5	3	3	2	←
↗	3	1	3	0	↘
	↑	↙	↑	↘	

PUZZLE 9 (25)

Parthenon

Fill in the numbers 1-30 into the grid so that each number is used exactly once. Reading each column from the top towards the bottom, each number not in the top row is obtained by carrying out the arithmetic operation just above it on the number just above it. In the example numbers 1-9 are used.

x3		-3		-3
x3		+6		+2

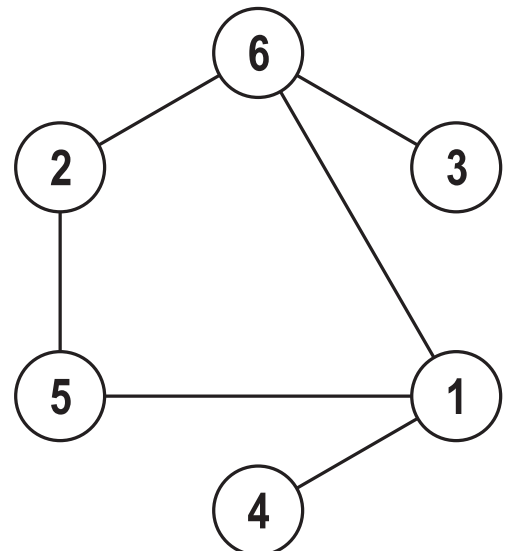
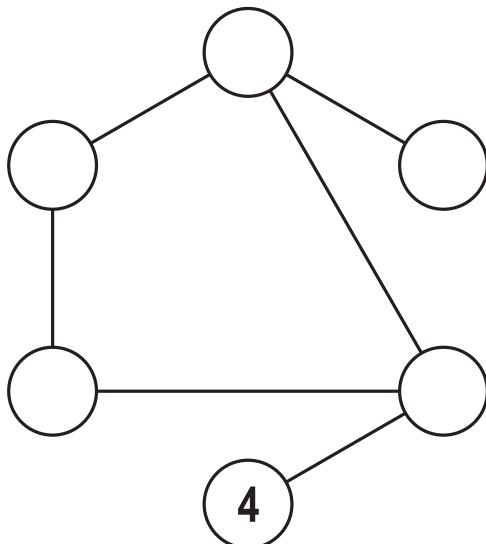
1		5		7
x3		-3		-3
3		2		4
x3		+6		+2
9		8		6

PUZZLE 10 (25)

Russian number puzzle

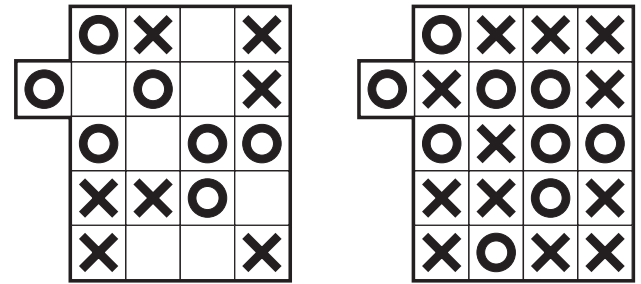
Write numbers 1-12 (1-14 in the second puzzle) into the circles so that numbers in neighbouring circles differ by at least four (six in the second puzzle). In the example numbers 1-6 are used and the smallest difference is 3.

NOTE: There is only one puzzle. You need to use numbers 1-14 and the smallest possible difference is 6.



PUZZLE 11 (15+40)

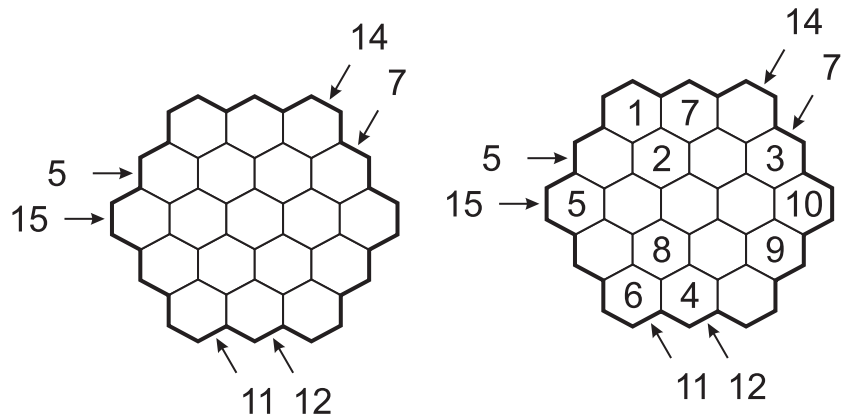
Fill in the grid with O's and X's so that four consecutive identical letters in a row, column or diagonal never occur.



No four in a row

PUZZLE 12 (25+35)

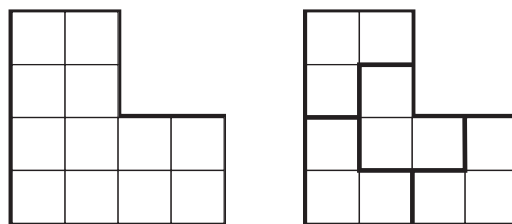
Fill in the numbers 1-10 into the hexagons so that in each row and diagonal there are exactly two numbers, and sums of rows and diagonals are all different. Several sums are given in advance.



Antimagical hexa

PUZZLE 13 (20+35)

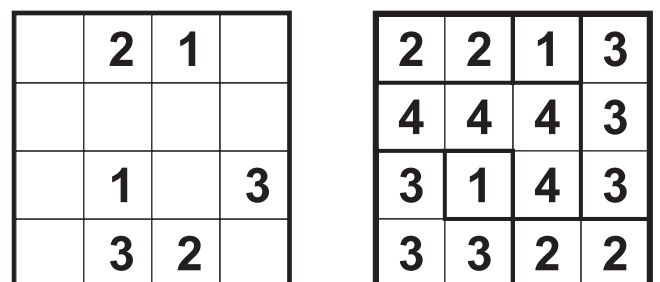
Divide the given shapes into congruent pieces. The pieces may be rotated but not mirrored. The number of pieces is eight (8) in the first puzzle and three (3) in the second.



Dissections

PUZZLE 14 (10+15+20)

Write digits into the empty squares in a way that each digit must be part of a connected area consisting of as many circles as the digit itself. Two areas of the same size may only touch each other diagonally.

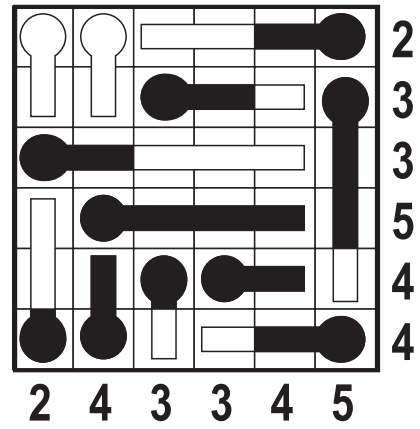
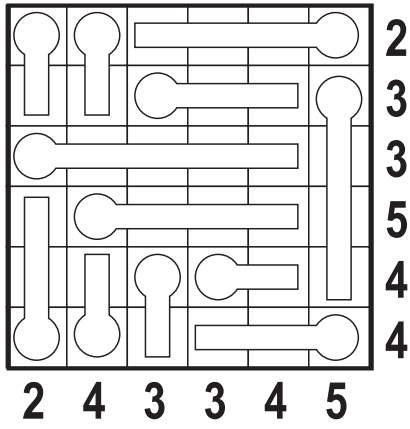


Area Occupation

PUZZLE 15 (10+30)

Thermometers

There are thermometers in the grid, all of which have their own level of mercury. The mercury always starts from the rounded end and makes it to the other end. There may be empty or full thermometers as well. Numbers around the grid indicate the number of squares in the given row or column that contain mercury.





14th World Puzzle Championship

PART 8

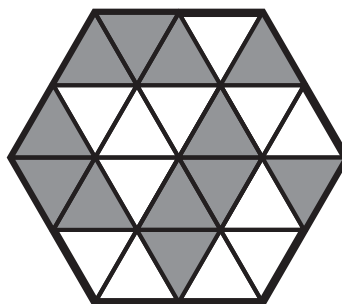
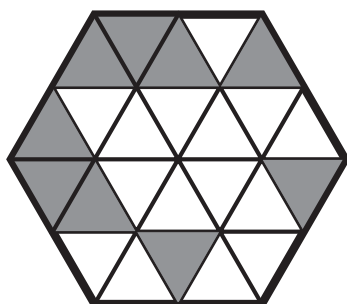
11th October, 2005

10:40 – 11:10 (30 min.)

Maximum score: 250 points + bonus

Fifty-fifty (15+20+25+30+40+55+65)

Paint some more triangles so that every equilateral hexagon that consists of six small triangles has three painted triangles and three white triangles.



Bonus points for the 10 fastest puzzlers (with no mistake):

150, 125, 100, 90, 80, 70, 60, 50, 40, 30.



14th World Puzzle Championship

PART 9

11th October, 2005

11:50 – 12:10 (20 min.)

Maximum score: 200 points

Screenetest

*Easy to understand puzzles – to be shown only for a few seconds.
More details on Monday evening.*



14th World Puzzle Championship

PART 10

11th October, 2005

14:15 – 14:45 (30 min.)

Maximum score: 700 points + bonus

TEAM ROUND

The Weakest Link

Darts (solved individually)

Girls in the labyrinth (solved as a team)

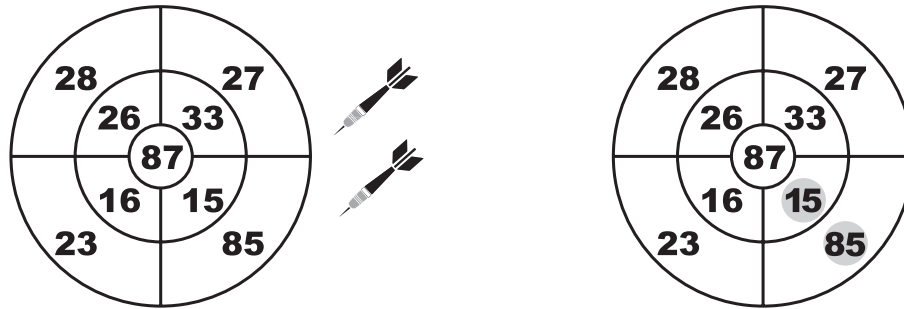
Bonus points for the 5 fastest teams (with no mistake)

300, 250, 200, 150, 100

PUZZLE 1

Darts

The number of the arrows show how many hits should be placed on the field so as to the sum of the hit numbers is 100. Each field can be hit only once.

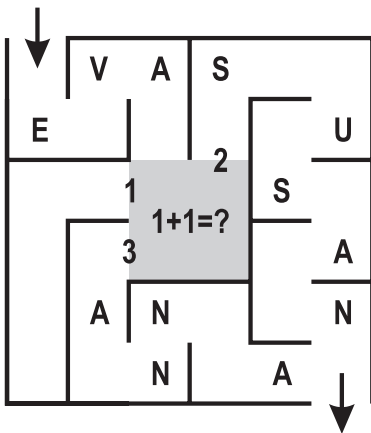


The sum: 100

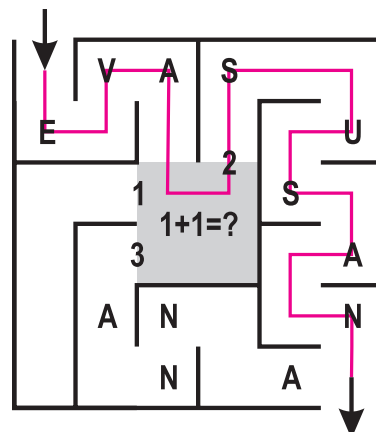
PUZZLE 2

Girls in the labyrinth

The team will receive a labyrinth that will be cut into four parts; each member of the team will receive one quarter of it. The labyrinth contains a number of so-called puzzle junctions. A puzzle junction has many possible entrance / exit routes that are marked with numbers and there is a puzzle at each such junction. If you arrive to the puzzle and solve it correctly, it will reveal which way to proceed. Paths between puzzles contains letters that you must collect while you proceed from puzzle to puzzle. Letters between any two puzzles result in female names when read together. Your task is to find the route through the labyrinth that is in accordance with the correct solutions of the visited puzzles. A long list of female names will be provided on the submission sheet, you have to mark with numbers those you have collected on the path in the order you collected them.



ANNA	
EVA	
EVELYN	
SUSAN	



ANNA	
EVA	1
EVELYN	
SUSAN	2



14th World Puzzle Championship

PART 11

11th October, 2005

15:10 – 16:50 (100 min.)

Maximum score: 1100 points

Innovative

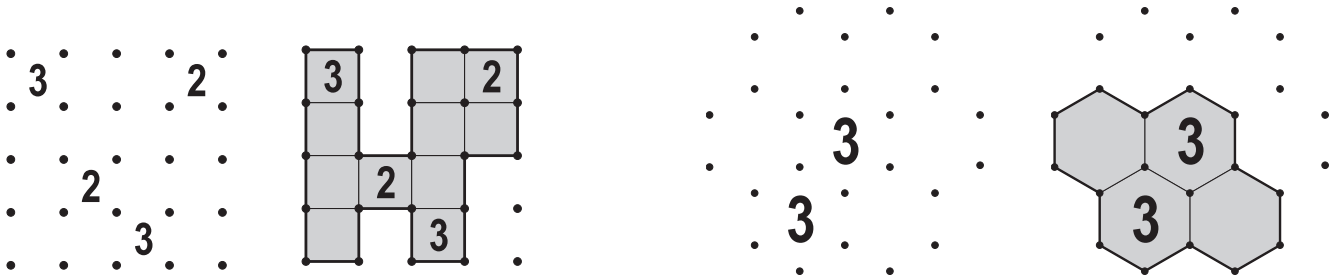
Fences in the cave	60 (10+15+35)
Black and White	60 (10+20+30)
Extra loopfinder	45 (15+30)
Equation path	40 (20+20)
Dutch snake	40 (15+25)
Japanese sums	65 (15+50)
Different sums	70 (10+20+40)
Domino skyscrapers	55 (20+35)
Tria six	80 (5+25+50)
Every second straight	35 (10+10+15)
Sunspots	55 (10+15+30)
Relation magic squares	75 (25+50)
Star battle	35 (10+25)
Tetris fences	70 (20+50)
Multiples cross-sums	100 (15+35+50)
Queen's Park	50 (15+35)
Pentomino extra	55
Paint in triangles	50
Valued capsules	60 (15+45)

PUZZLE 1 (10+15+35)

Fences in the cave

Draw a single closed loop that only travels horizontally and vertically. Numbers have a dual meaning in this puzzle. Firstly, they reveal the number of loop segments adjacent to them, similarly to the classical Fences puzzle. Secondly, considering the loop's interior a cave, they also reveal how many squares are visible within the cave from the square the number is in (which is NOT included).

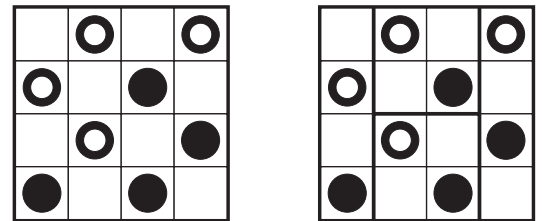
NOTE: All numbers are inside the loop.



PUZZLE 2 (10+20+30)

Black and white

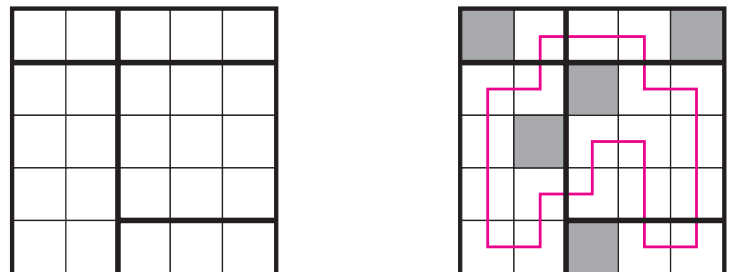
Divide the grid into rectangles along the vertical and horizontal grid lines so that each rectangle contains one white circle and one black circle.



PUZZLE 3 (15+30)

Extra loopfinder

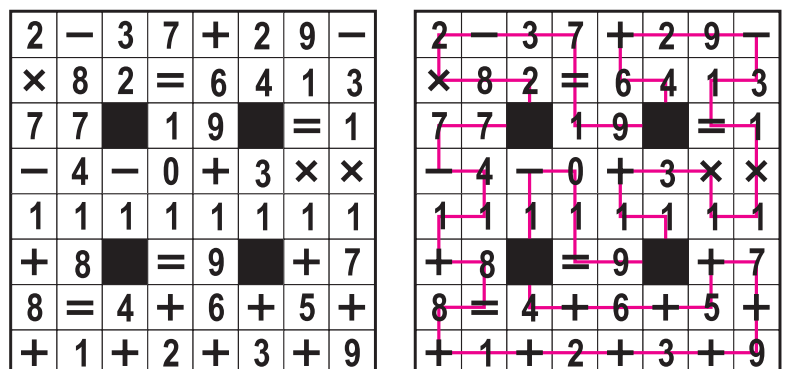
Paint a few squares black so that every area surrounded by thick lines contains exactly one black square and no two black squares share an edge (they may touch diagonally). Then draw a single continuous loop that only travels horizontally or vertically and travels through all squares.



PUZZLE 4 (20+20)

Equation path

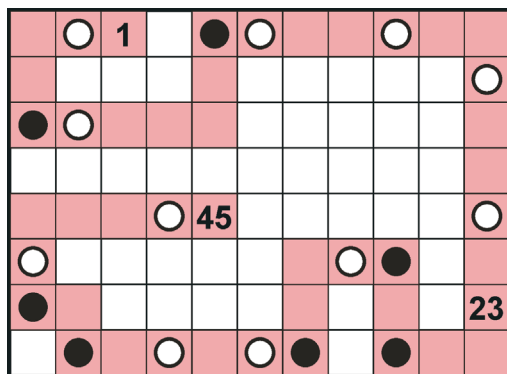
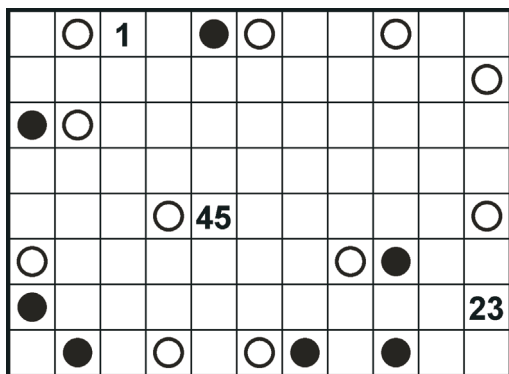
Draw a closed loop into the grid that travels only horizontally or vertically, passes all squares, and never crosses or overlaps itself. Reading the content of the squares in the order they are visited, a mathematically correct equation appears between any two consecutively reached black square. The standard arithmetic rules apply, i.e. multiplicative operations take precedence over additive ones.



PUZZLE 5 (15+25)

Dutch snake

There is a 45 units long snake hiding in the grid. The body of the snake cannot touch itself, not even diagonally. The snake makes a 90 degrees turn on each black circle and goes straightly through each white circle. The head, middle and tail squares of the snake are given.



PUZZLE 6 (15+50)

Japanese sums

Place digits into the grid (1-5 in the small puzzle, 1-7 in the large one) 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.

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

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

PUZZLE 7 (10+20+40)

Different sums

Pair the numbers in the grid so that the sum of any two pairs is different. Lines that connect the members of different pairs cannot cross each other.

NOTE: Members of any pair should be directly or diagonally neighbours.

0	2	1	
3	1	3	2
2	0	2	3
	2	0	0

0	2	1	
3	1	3	2
2	0	2	3
	2	0	0

PUZZLE 8 (20+35)

Domino skycrapers

Place the given set of dominoes into the grid so that no number is repeated in any row or column. Numbers on the dominoes are to be treated as skyscrapers whose height is equal to the number they are standing on. Numbers around the grid reveal the number of different skyscrapers visible from that direction. A skyscraper is visible from a viewpoint if and only if it is bigger than any other skyscraper that is closer to the viewpoint in the same direction.

	2		2	3		
						4
5						
2						3
3						
	3					3

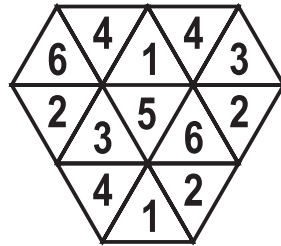
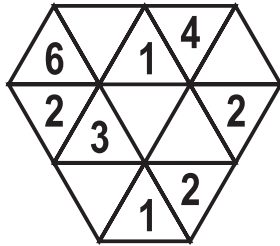
1	2						
1	3	2	3				
1	4	2	4	3	4		
1	5	2	5	3	5	4	5

	2		2	3		
	3	5	4	2	1	4
5	1	2	3	4	5	
	5	3	2	1	4	
2	4	1	5	3	2	3
3	2	4	1	5	3	
	3					3

PUZZLE 9 (5+25+50)

Tria six

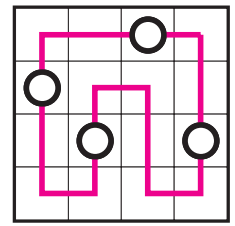
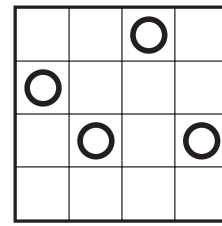
Write numbers 1-6 into the triangles so that every full hexagon of side 1 (consisting of six small triangles) contains different numbers.



PUZZLE 10 (10+10+15)

Every second straight

Draw a single closed loop that passes through each square exactly once and never crosses or overlaps itself. The path travels horizontally and vertically, but never diagonally. The path must pass through each circle straightly. Along the loop, between each consequent two circles there is exactly one empty square where the loop makes no turn.



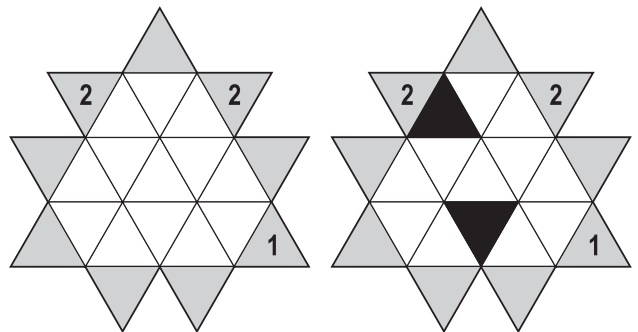
PUZZLE 11 (10+15+30)

Sunspots

Paint a few triangles black, these will represent sunspots. Numbers around the grid reveal how many sunspots are visible combined in the two directions that are visible from the given number. No two sunspots can touch each other, not even at a single point.

NOTE: Sunspots do not block numbers from seeing sunspots beyond them.

Sunspots seen are counted once, even if they are touching the number and hence falling into both viewing direction.



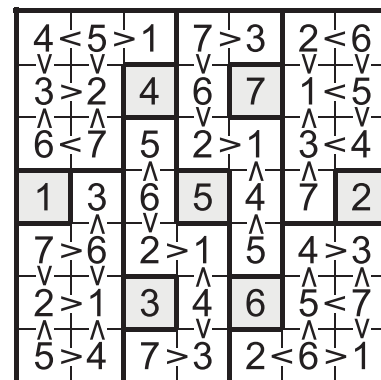
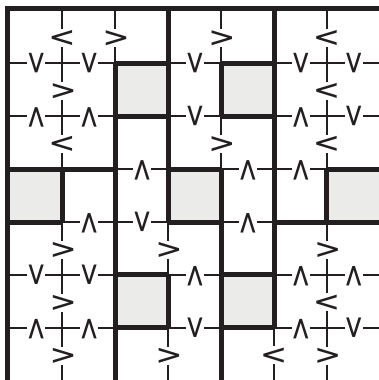
PUZZLE 12 (25+50)

Relation magic squares

Fill the grid with numbers so that each row, column and area contains only different numbers. Relation signs between adjacent squares must be satisfied.

NOTE: You will use numbers 1-7 in the first puzzle, and numbers 1-9 in the second.

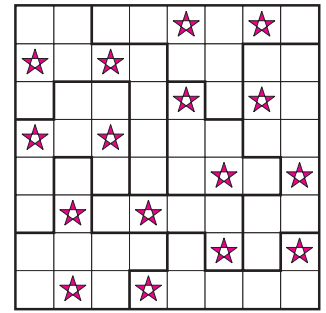
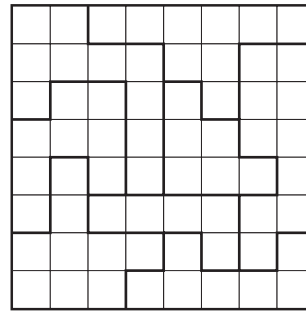
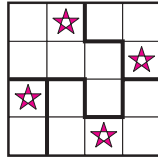
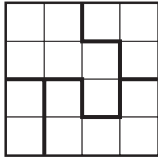
Grey squares also contain different numbers.



PUZZLE 13 (10+25)

Star battle

Mark several squares with stars so that there be an equal number of stars in each row, column and in each area surrounded by thick lines. Stars may not touch each other, not even diagonally. The number of stars in a row is one in the first puzzle and two in the second puzzle.

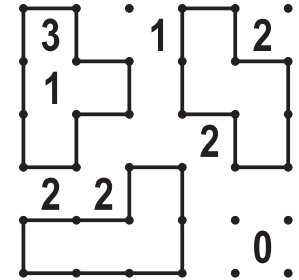
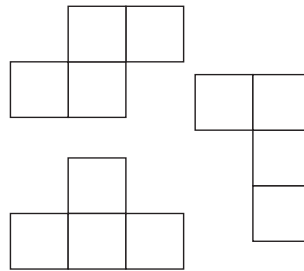
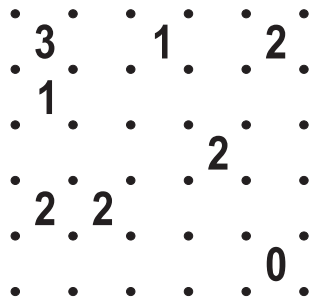


PUZZLE 14 (20+50)

Tetris fences

Place the seven Tetris shapes into the grid knowing that the numbers indicate the number of line segments adjacent to it. The shapes may be rotated but not mirrored.

NOTE: Tetris pieces cannot touch each other, not even diagonally.

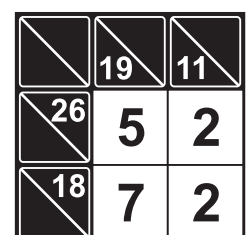
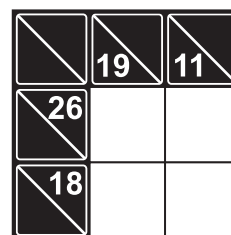


PUZZLE 15 (15+35+50)

Multiples cross-sum

Fill in the crossword with digits so that the number appearing in each row or column is a multiple of (but not equal to) the corresponding definition.

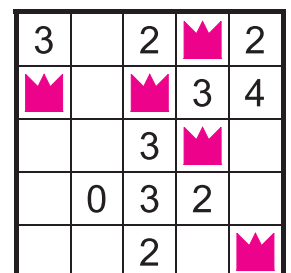
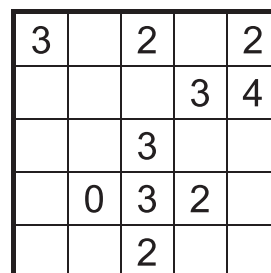
No number may start with zero.



PUZZLE 16 (15+35)

Queen's Park

Place five queens into the grid so that none of them stands on a number and each number equals to the number of directions from which the given square is attacked by a queen. A queen attacks to arbitrary distance horizontally, vertically and diagonally.



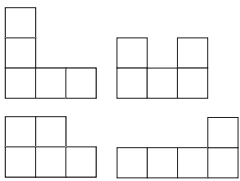
PUZZLE 17 (55)

Extra pentomino

Put the given pentominoes into the grid so that they do not touch each other, not even diagonally. Numbers on the top and left reveal the number of pentominoes in the given row or column. Numbers on the bottom and the right reveal the number of squares belonging to any pentomino in the given row or column. Pentominoes may be rotated but may not be mirrored.

NOTE: All the given pentominoes are used. The pentominoes cannot cover the black squares.

	2	2	1	3	2	2	
2							5
2							2
1							3
1							2
2							4
2							4
	5	3	1	3	3	5	

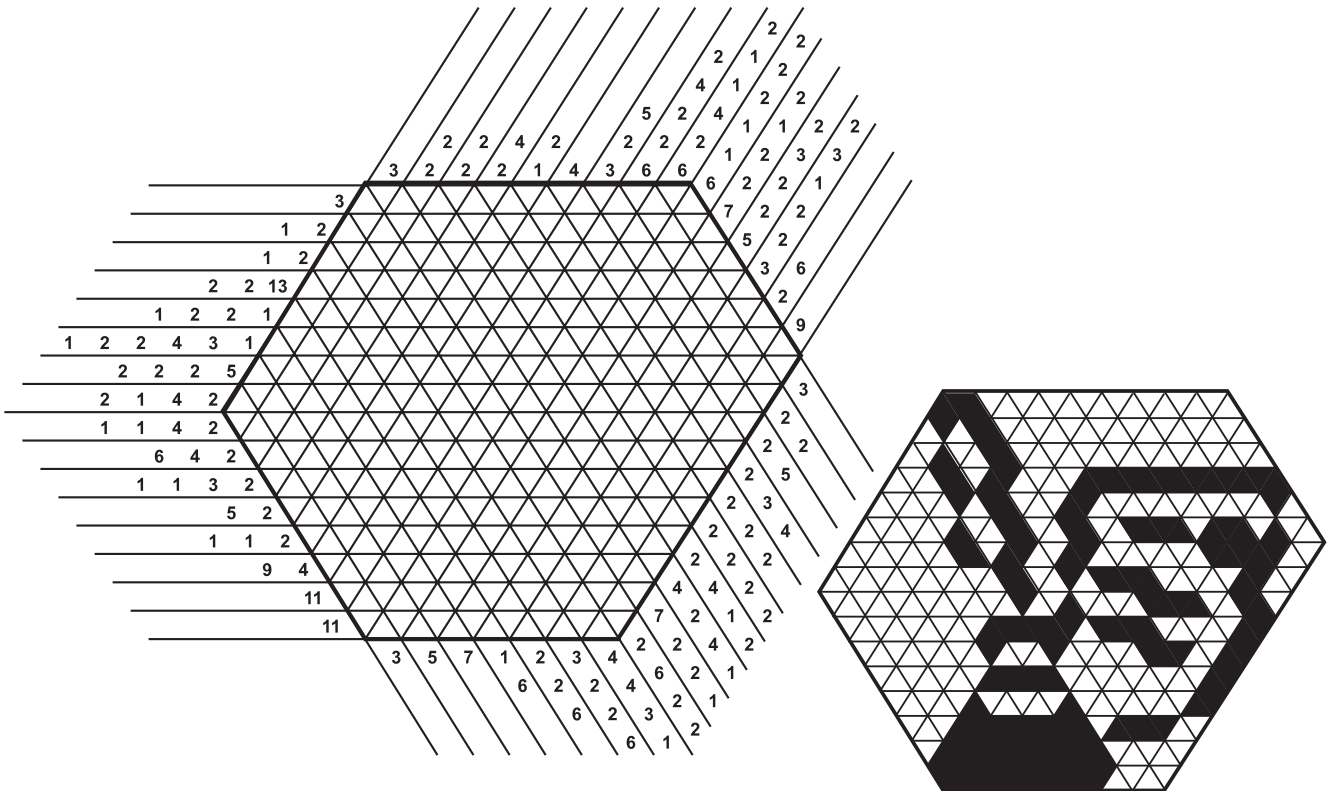


	2	2	1	3	2	2	
2							5
2							2
1							3
1							2
2							4
2							4
	5	3	1	3	3	5	

PUZZLE 18 (50)

Paint in triangles

This puzzle is a variation of the Paint it black! puzzle. In this puzzle the information are given from three directions. The numbers tell you how many black section must be in that direction, and how long they are. Before and after the black section there can be several empty triangles, but between two black sections there must be at least one.



PUZZLE 19 (15+45)

Valued capsules

Put numbers between 1-4 (between 1-5 in the bigger puzzle) into the empty squares so that each of them appears the same number of times in each row and column. No two neighbouring square may contain identical numbers. Moreover, each capsule (marked by thick lines) contains each number exactly once. In the example the numbers 1-3 are used.

				1	
		1			
1					3
			3		
	3				
				2	

3	1	2	3	1	2
2	3	1	2	3	1
1	2	3	1	2	3
3	1	2	3	1	2
2	3	1	2	3	1
1	2	3	1	2	3



14th World Puzzle Championship

PART 12

11th October, 2005

17:00 – 17:30 (30 min.)

Maximum score: 700 points + bonus

TEAM ROUND

Jigsaw puzzle

Put together a picture from the given pieces. But beware: some pieces may not be needed.

Bonus points for the 5 fastest teams (with no mistake)
300, 250, 200, 150, 100