

NAME:

POINTS:



8TH 24 HOURS PUZZLE CHAMPIONSHIP

17-18 NOVEMBER, 2007

HOTEL BENTA

BUDAPEST

PUZZLES BY

ZOLTÁN HORVÁTH

Warm up	40 points (15 + 25)
Dutch loop	110 points (5+5+10+25+30+35)
Valued capsules	20 points (10+10)
Hexa tent camp	80 points (20+60)
Dissections	70 points
Tiger in the Woods	70 points (10+10+20+30)
Pearls	35 points (10+25)
Toroidal sudoku	150 points
Pyramid	45 points (15+30)
Loop in the hexagon	55 points (5+10+15+25)
Fences in the cave	115 points (20+20+35+40)
Dotted snakes	105 points (20+85)
New-style labyrinth	75 points (5+10+35+25)
Simple tent camp	30 points (5+25)



Warm up

Write numbers between 1 and 9 into the empty cells so that each number occurs at least once and all the marked relations become true.

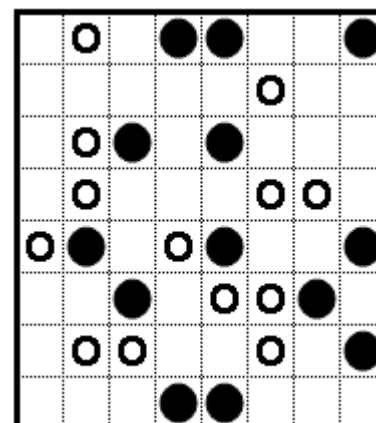
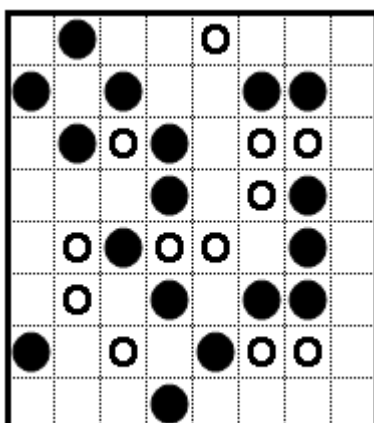
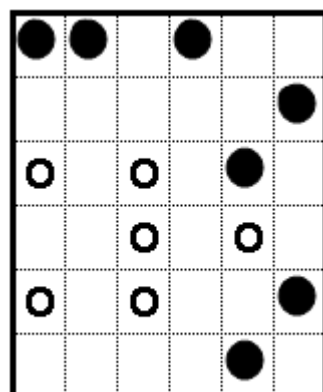
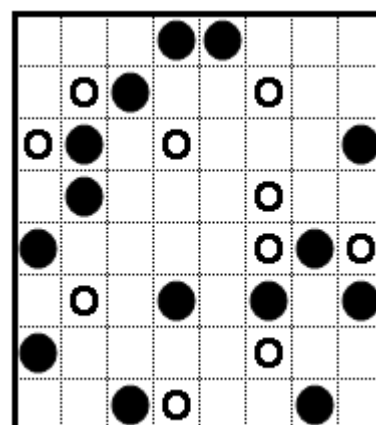
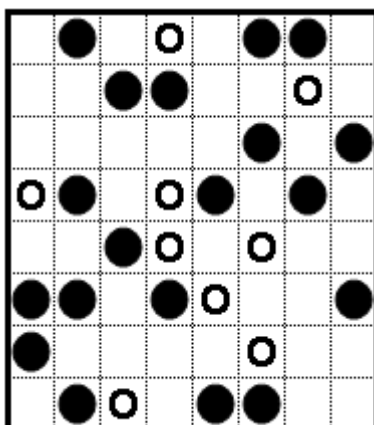
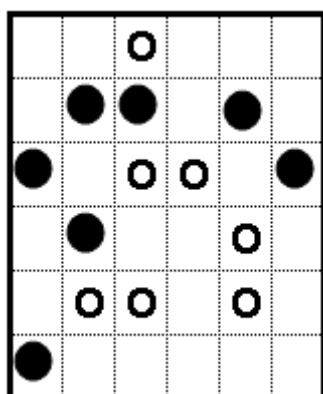
$$\begin{array}{rcccccc} & \square & 5 & \square & 8 & \square \\ + & 2 & \square & 1 & \square & 7 \\ \hline \square & 1 & \square & \square & 3 & \square \end{array}$$

15+25 points

$$\begin{array}{rcc} & \square & \square & \times & \square & \square \\ & \square & \square & \square & & \\ + & & 5 & \square & 2 \\ \hline & 2 & 2 & \square & 2 \end{array}$$

Dutch loop

Draw a loop that has no ends or breaks. The loop's line turns at the black circles and passes straight at the white circles. The loop's line cannot go diagonally and cannot overlap or intersect itself. The loop does not necessarily pass through all squares.



Left to right: 5+10+25+5+30+35 points



Dissection

Divide the grid into four congruent shapes, each containing just different letters.

B	L	Q	D	G	N	K	C	P	H
S	T	O	S	N	J	V	W	N	X
Y	L	A	B	Y	J	P	U	P	E
T	C	X	O	W	M	U	E	A	L
K	K	K	S	M	C	E	D	V	O
X	R	B	N	C	I	R	R	F	Y
I	V	R	S	J	V	O	Y	H	I
F	G	I	A	J	X	M	W	T	F
H	Q	F	G	Q	U	D	M	D	W
G	B	Q	P	E	L	A	U	T	H

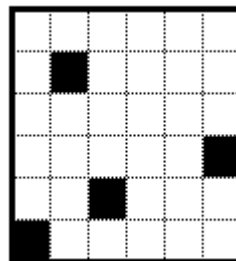
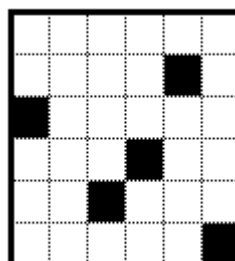
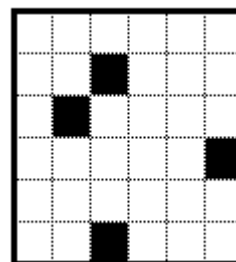
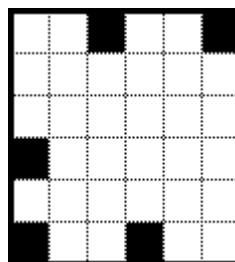
70 points

Tiger in the Woods

Draw a line into each figure with keeping the rules below.

The line:

- must pass all white squares
- can only contain horizontal and vertical fragments
- can start and end in any white square
- can intersect but cannot overlap itself
- must be drawn so that whenever it switches direction, that must be kept until hitting either a wall or a black square
- cannot pass twice in the starting or ending field

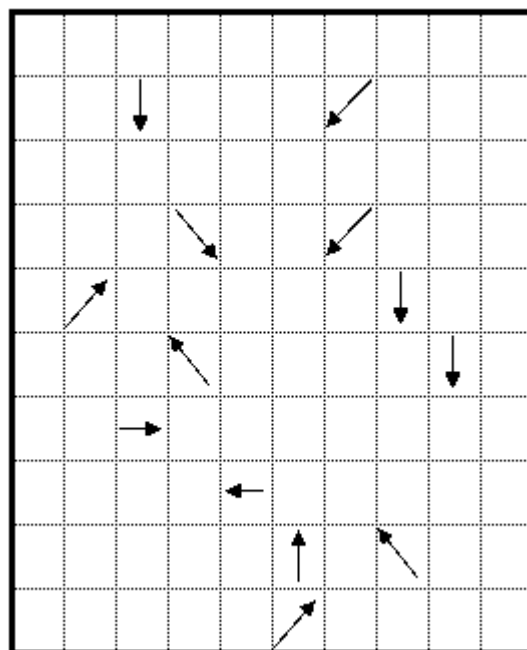
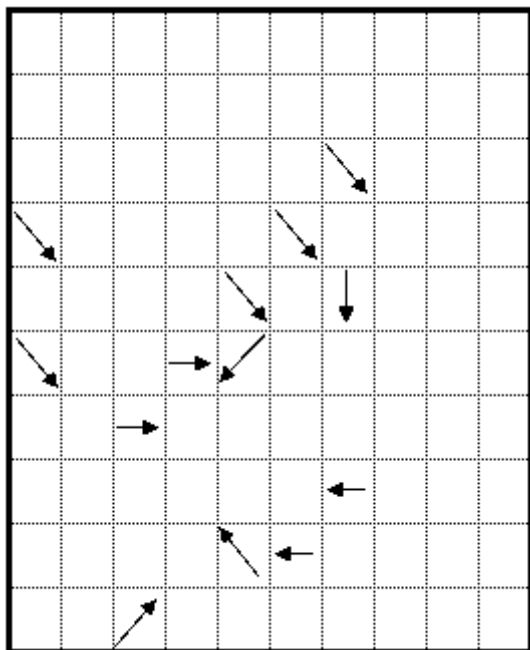


10+10+20+30 points



Pearls

Draw a few pearls into the figure. The pearls cannot touch each other, not even diagonally. Each arrow is pointing at exactly one pearl, and each pearl is pointed at by exactly one arrow.

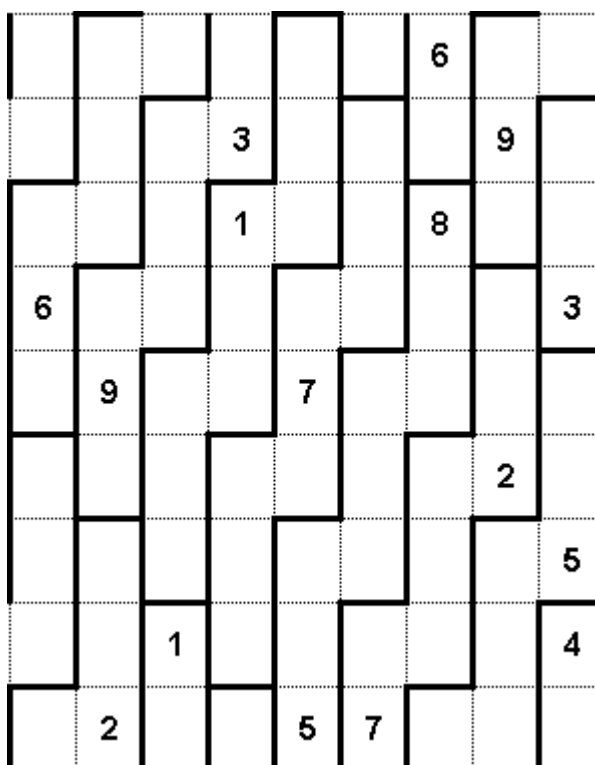


10+25 points

Toroidal sudoku

Fill in the grid so that every row, every column, and every outlined region contains the digits 1 through 9. Some of the outlined regions will wrap between the top and bottom edges, and/or the left and right edges of the grid.

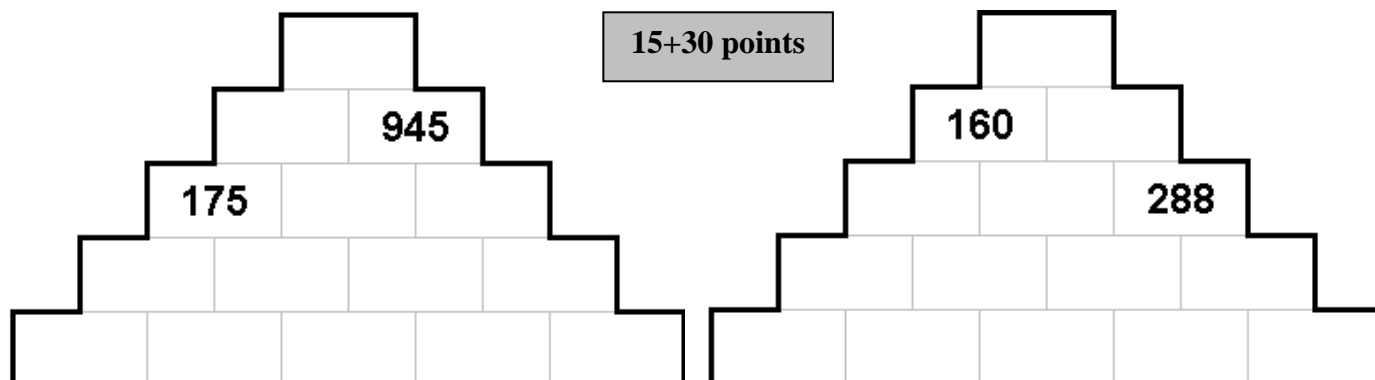
150 points





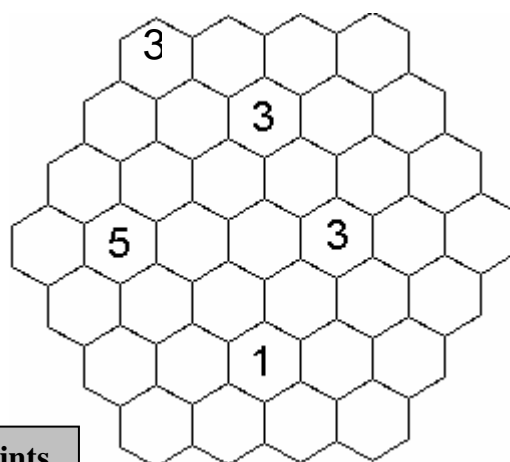
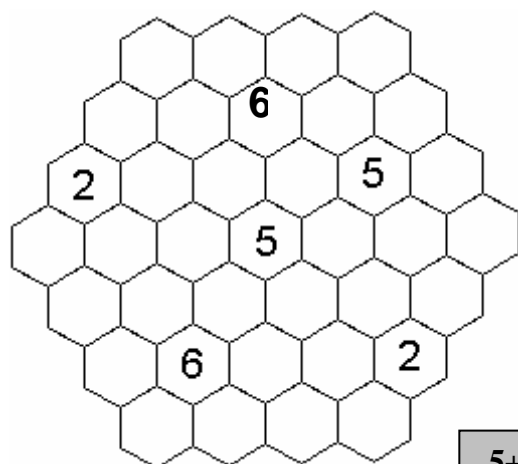
Pyramid

Fill in the free spaces of the diagram such that the numbers in the squares are always the product of the two below them. The first row consists one digits numbers.

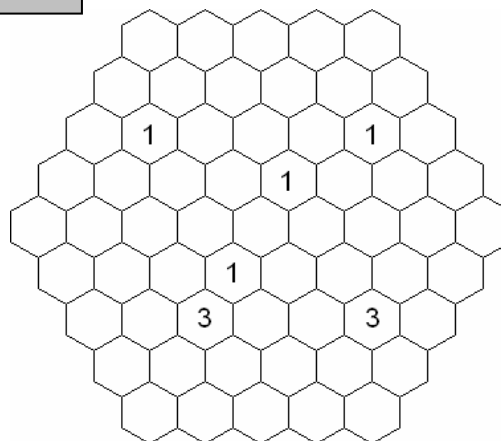
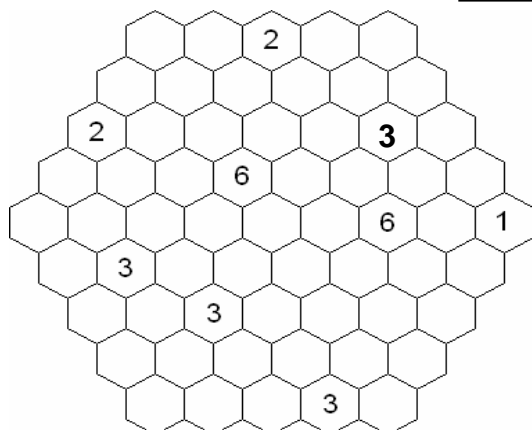


Loop in the hexagon

Each hexagonal grid below contains a loop of adjacent hexagons in which no sharp turns are ever made (there is only 120 and 180 degree turn). The numbers in the grid indicate how many of the adjacent hexagons contain part of the path. The path does not go through any numbered hexagons.



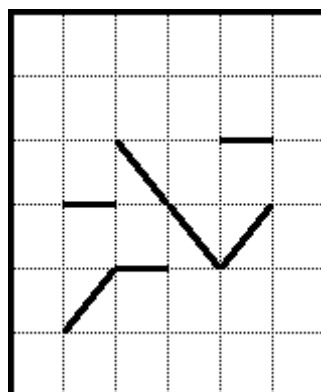
5+10+15+25 points



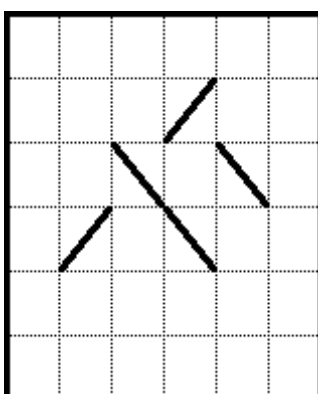
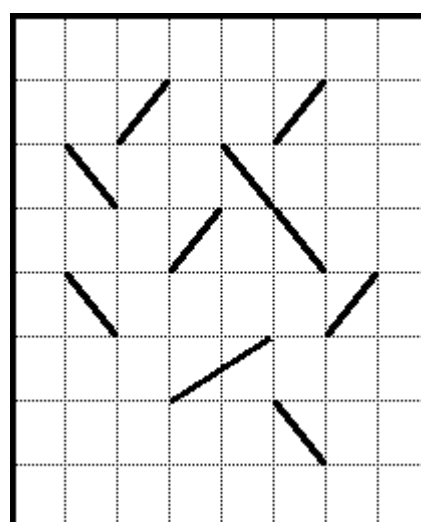
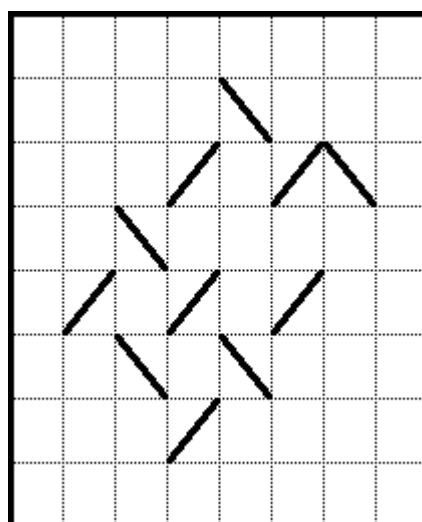


New-style labirynth

Draw a single continuous loop that travels through all the squares exactly once. It only travels horizontally or vertically and never crosses the given thick lines.

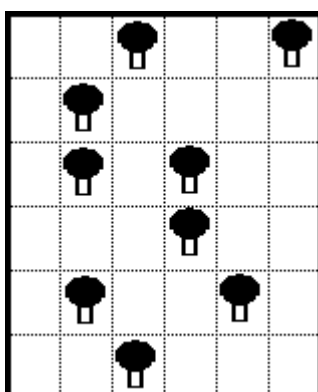


5+10+35+25 points



Simple tent camp

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. Mark the place of the tents.



5+25 points

