

Indian Puzzle Championship 2011 - Finals

12-Jun-2011, Bangalore

Round 1

60 minutes

Name :

Contact :

Submission Time :

| Puzzle | Check1 | Check2 |
|--------------------------|--------|--------|
| ABC Connection | | |
| Triangle Math | | |
| Diagonally Magic Squares | | |
| Tiger In The Woods | | |
| Different Sums | | |
| Tent Sector | | |
| Anglers | | |
| Queens' Park | | |
| Submarines | | |
| Hexa Seven | | |
| Domino Skyscraper | | |
| Hexa Fences | | |
| No Four in a Row | | |
| Sunspots | | |
| Sign of Four | | |
| Star Battle | | |
| Every Second Straight | | |
| Fifty-fifty | | |
| Extra Loopfinder | | |
| Fillomino | | |
| Bonus | | |

| Number of correct puzzles | Points |
|---------------------------|--------|
| 1 | 10 |
| 2 | 20 |
| 3 | 30 |
| 4 | 40 |
| 5 | 60 |
| 6 | 80 |
| 7 | 100 |
| 8 | 120 |
| 9 | 150 |
| 10 | 180 |
| 11 | 210 |
| 12 | 240 |
| 13 | 280 |
| 14 | 320 |
| 15 | 360 |
| 16 | 400 |
| 17 | 450 |
| 18 | 500 |
| 19 | 550 |
| 20 | 600 |

Acknowledgements

All example puzzles in this round have previously appeared in official Information Booklet of WPC 2005, Eger, Hungary.

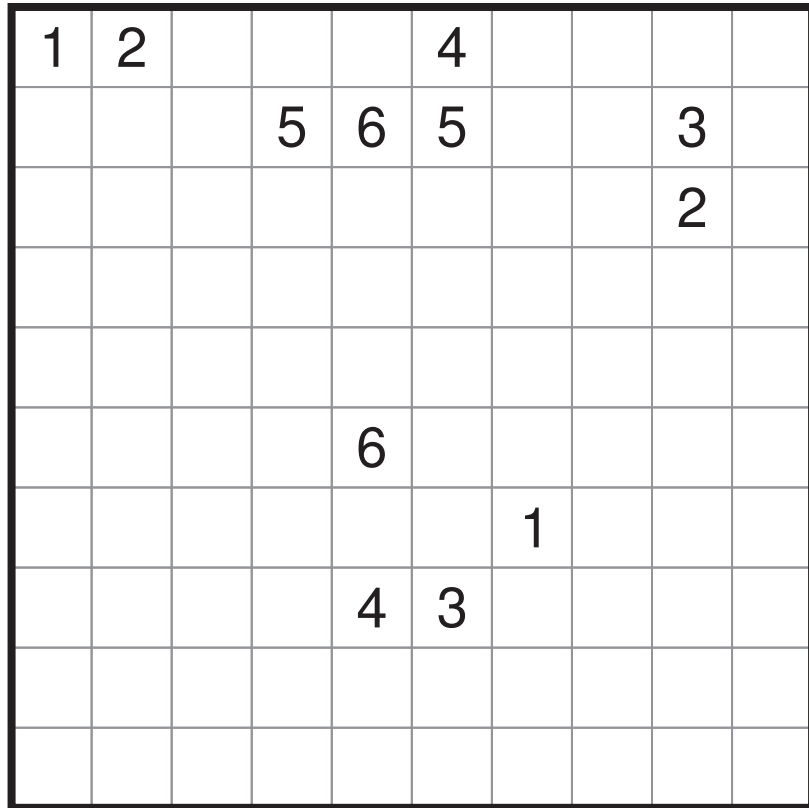
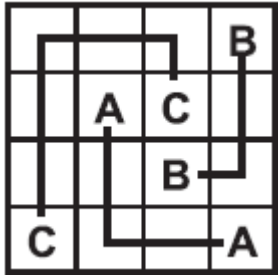
Palmer Mebane (ABC Connection, Fillomino)

Serkan Yurekli (Triangle Math, Tent Sector, Submarines, Hexa Seven, Hexa Fences, Sunspots, Sign of Four, Fifty-fifty)



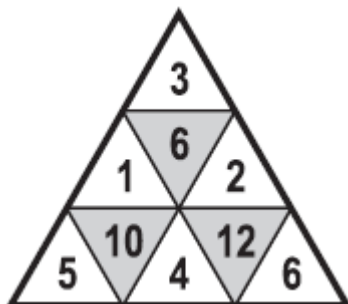
ABC connection

Connect identical letters with lines that are only horizontal and vertical and always connect the centers of adjacent squares. Lines don't cross or overlap with each other.

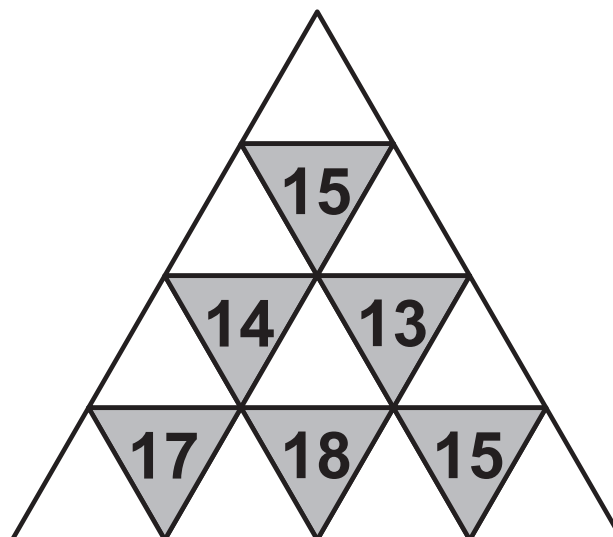


Triangle Math

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.



(The example uses 1-6.)



1~10

Diagonally Magic Squares

Fill in the grid so that each row, column and diagonal contains each number between 1-6 exactly once.

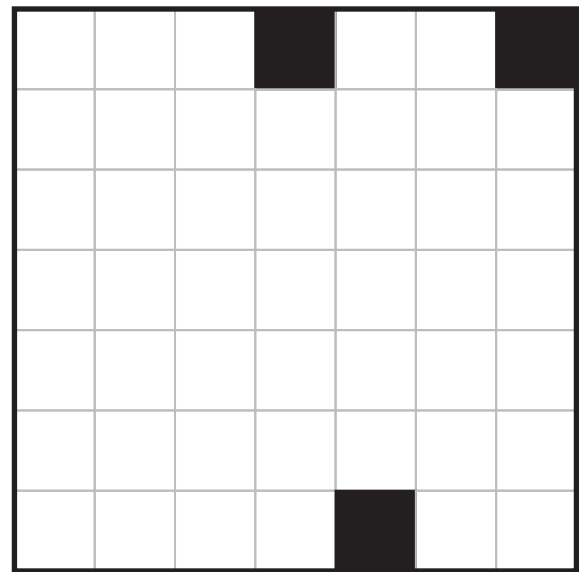
| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 3 | 4 | 5 | 1 | 2 |
| 5 | 1 | 2 | 3 | 4 |
| 2 | 3 | 4 | 5 | 1 |
| 4 | 5 | 1 | 2 | 3 |

(Example uses 1-5)

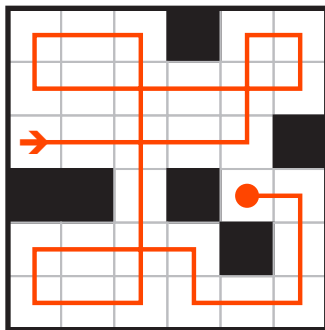
| | | | | | |
|---|---|---|---|---|---|
| | 5 | 6 | | | |
| | | | | | 2 |
| 2 | | | | | 3 |
| 5 | | | | | 6 |
| 4 | | | | | |
| | | | 5 | 4 | |

Tiger In the Woods

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 path should hit either a wall or a black square.



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.

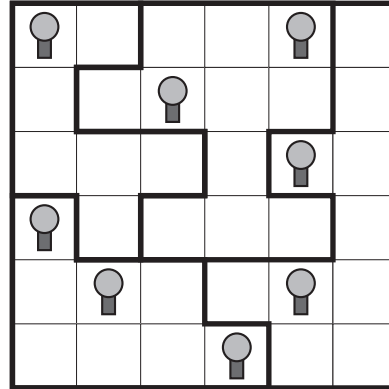
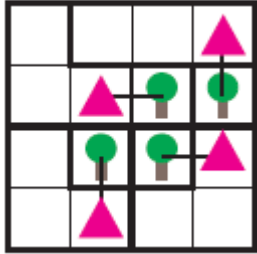
| | | | |
|---|---|---|---|
| 0 | 2 | 1 | |
| 3 | 1 | 3 | 2 |
| 2 | 0 | 2 | 3 |
| 2 | 0 | 0 | |

| | | | | | |
|---|---|---|---|---|---|
| | 4 | 5 | 5 | 5 | 3 |
| 2 | 4 | 0 | 5 | 1 | 2 |
| 4 | 2 | 1 | 0 | 1 | 0 |
| 1 | 2 | 1 | 3 | 4 | |

Note: This puzzle has 2 solutions

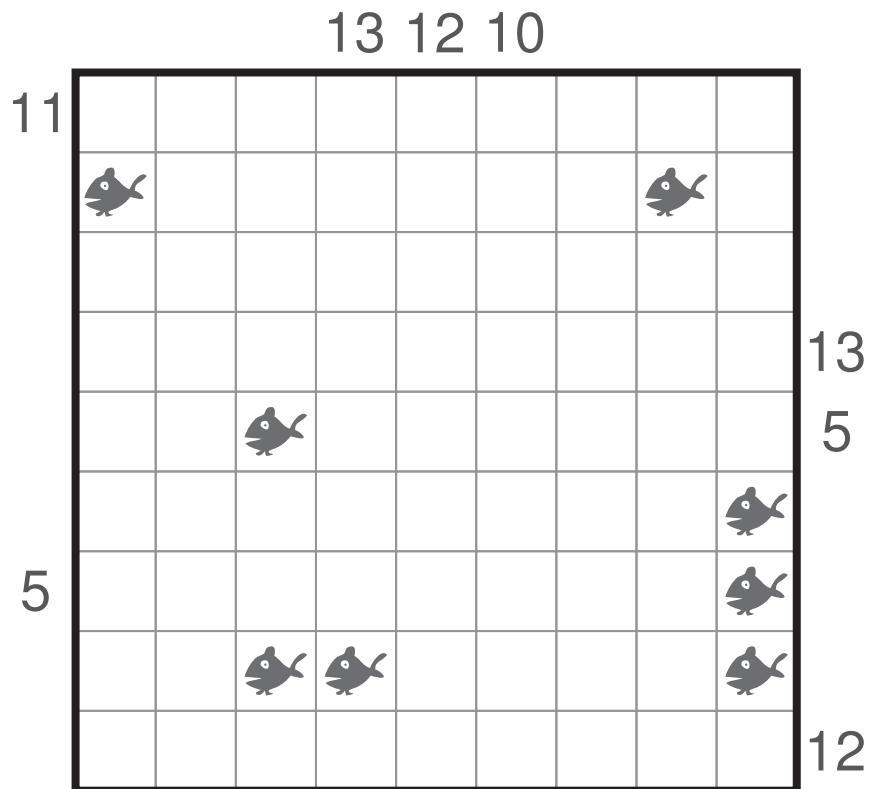
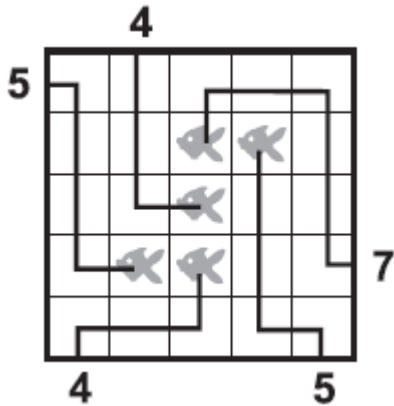
Tent Sector

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.



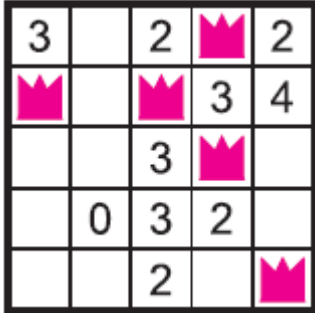
Anglers

The grid represents a lake and some squares contain a fish. There are a few anglers sitting around the lake, each of whom has 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 their fish.

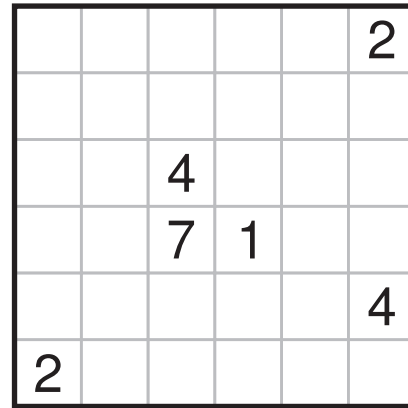


Queens' Park

Place nine 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. A queen does not block another queen.



(Example uses 5 queens)

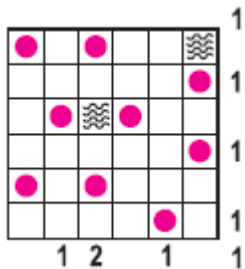


9 Queens

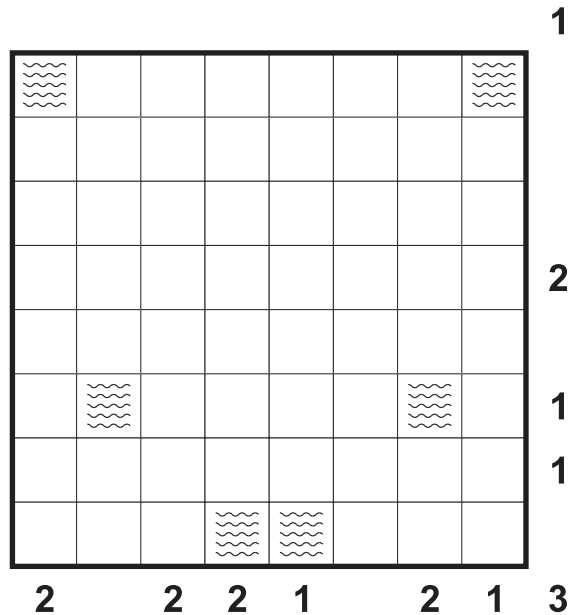
Submarines

There are 10 submarines hiding in the grid, each occupying a single square. They do not touch each other, not even diagonally, and they cannot be in squares marked with water. Numbers outside the grid reveal how many submarines can be found in the given row, column or main diagonal.

10 Submarines

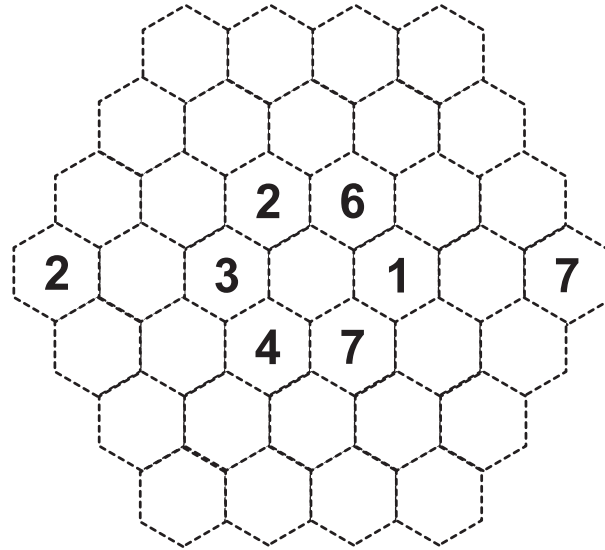


(Example uses 9 submarines.)



Hexa Seven

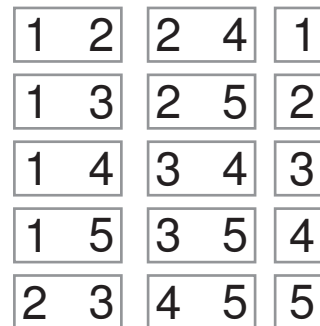
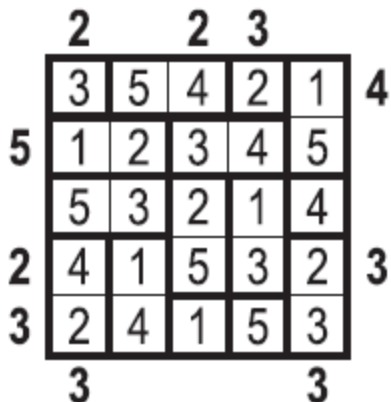
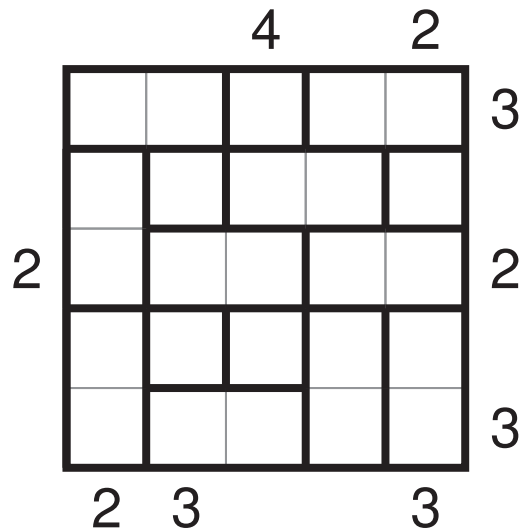
Write numbers between 1 and 7 into the white hexagons so that the neighbours of each white hexagon are all different.



Domino Skyscraper

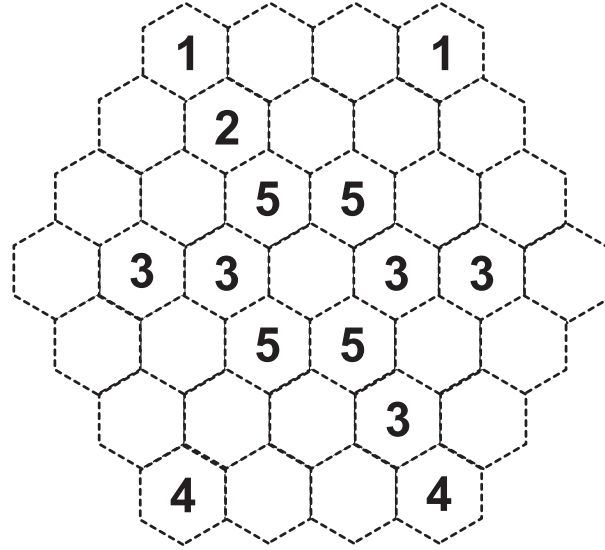
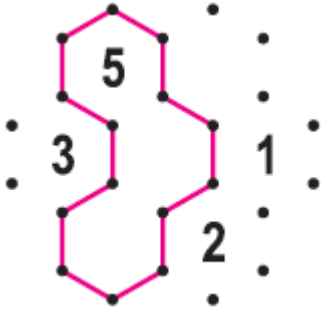
Place the given set of dominoes into the grid so that no number is repeated in any row or column.

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.



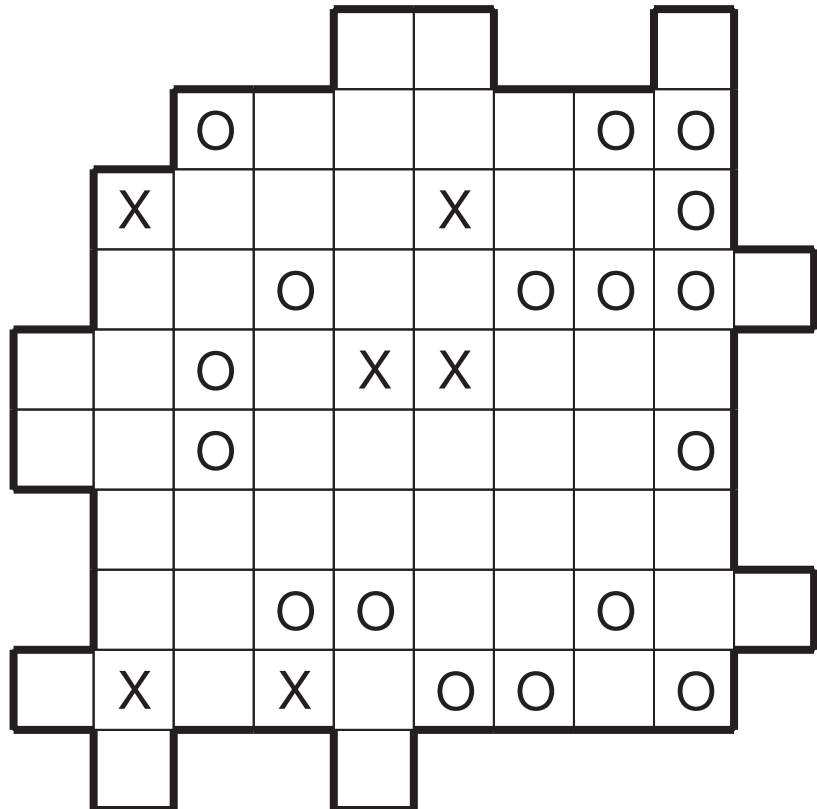
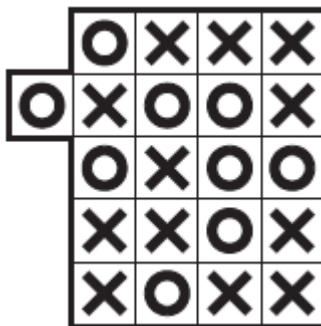
Hexa Fence

Draw a single closed loop that only travels on the hexagonal sides marked by the dots. Numbers reveal how many edges around the loop are contained in the loop.



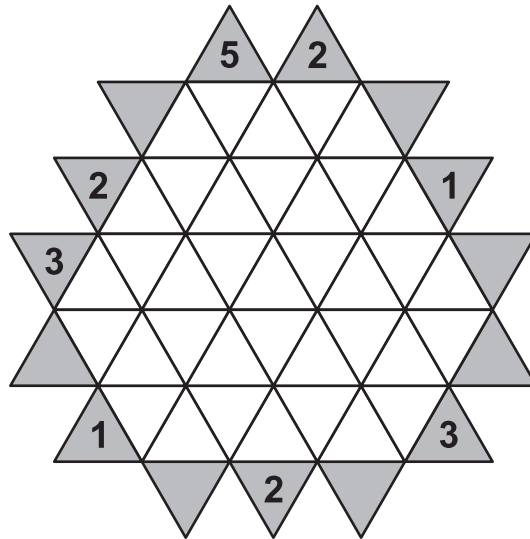
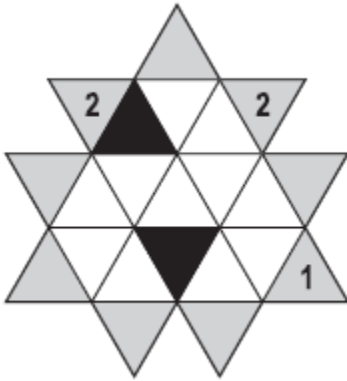
No Four In A Row

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



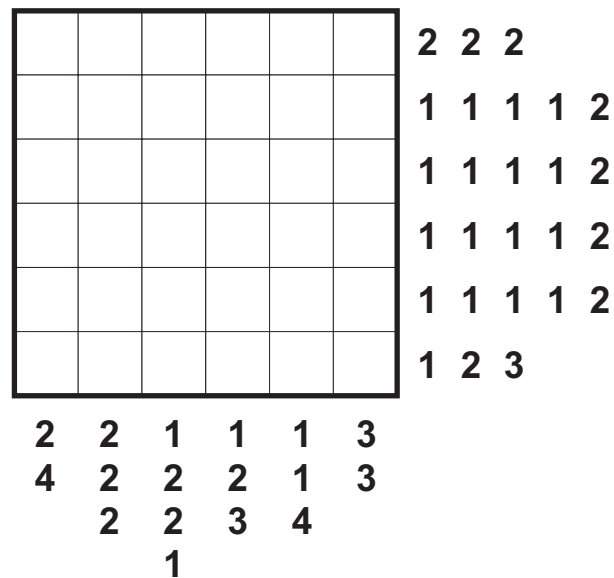
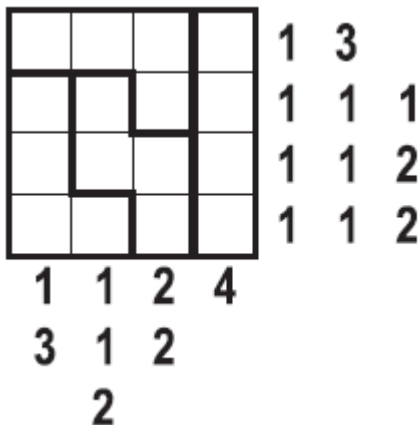
Sunspots

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.



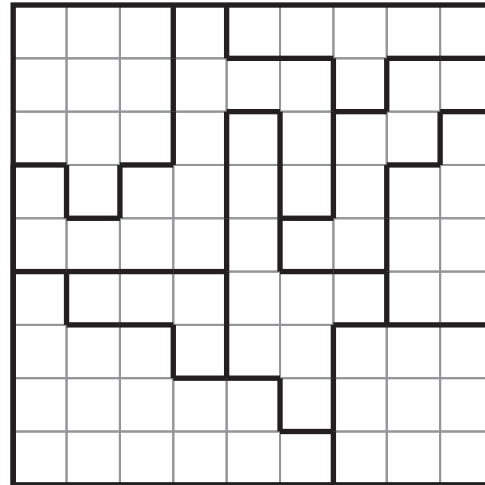
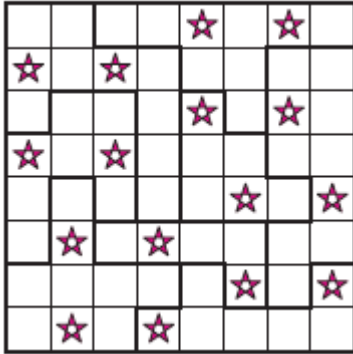
Sign Of Four

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.



Star Battle

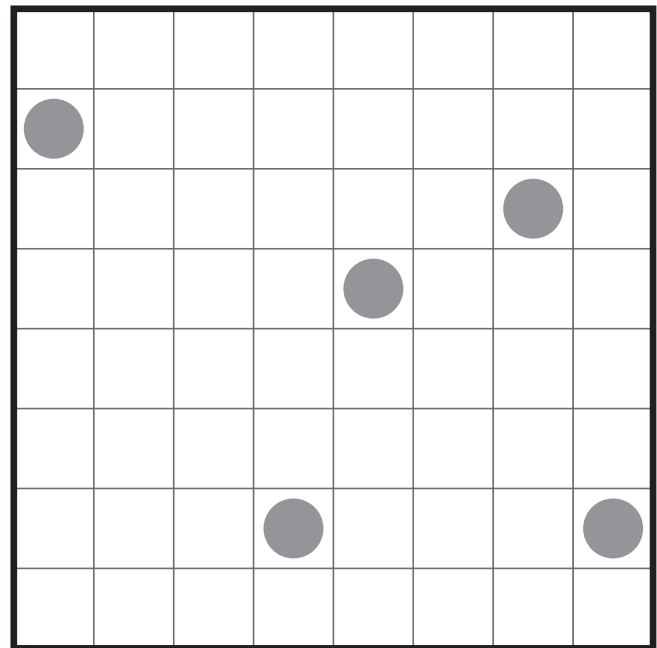
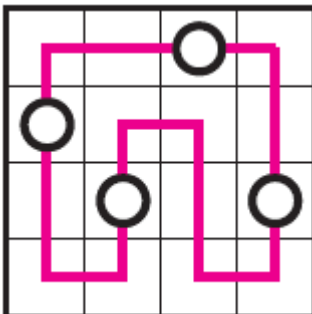
Mark several squares with stars so that there will be two stars in each row, column and in each area surrounded by thick lines. Stars may not touch each other, not even diagonally.



Every Second Straight

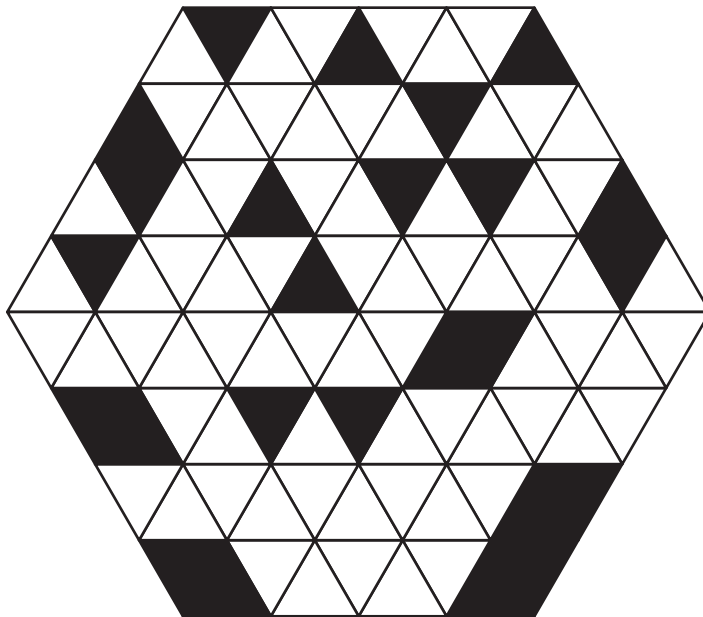
Draw a single closed loop that passes through each square exactly once and never crosses or overlaps itself. The path travels horizontally and vertically, but never diagonally.

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.



Fifty-Fifty

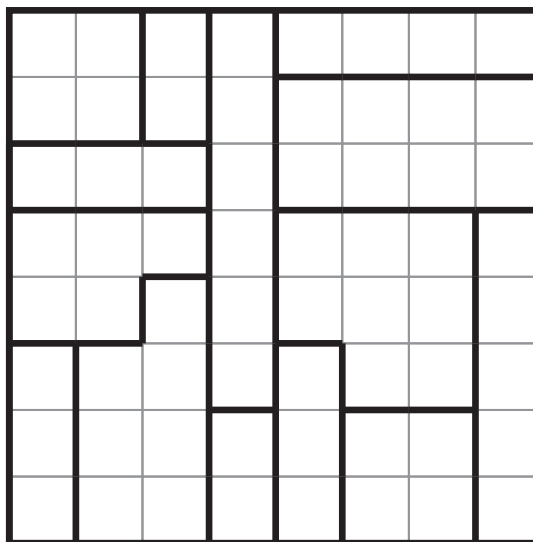
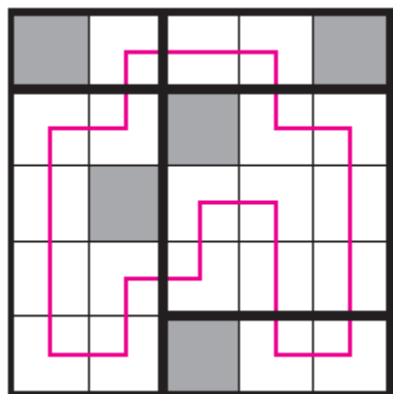
Paint some more triangles so that every equilateral hexagon that consists of six small triangles has three painted triangles and three white triangles.



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.



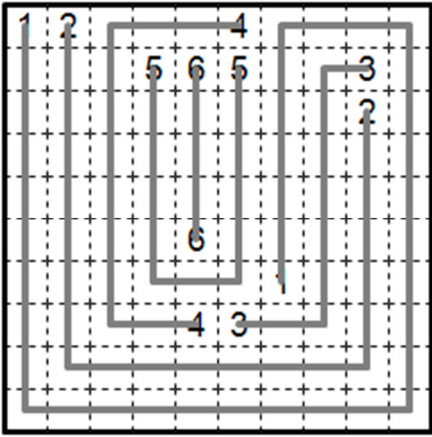
Fillomino

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

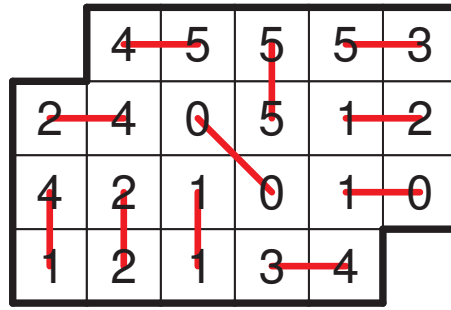
| | | | |
|---|---|---|---|
| 2 | 2 | 1 | 3 |
| 4 | 4 | 4 | 3 |
| 3 | 1 | 4 | 3 |
| 3 | 3 | 2 | 2 |

| | | | | | | | | | |
|---|----|---|----|----|---|----|---|----|----|
| 9 | 16 | 3 | 20 | 11 | | | | | |
| | | | | | | 3 | 1 | | |
| | | | | | 3 | | | 2 | |
| | | | | | | | | 2 | |
| | | | | | | | 1 | | |
| | | 2 | | | | | | | |
| | 2 | | | | | | | | |
| | 4 | | | 16 | | | | | |
| | | 4 | 4 | | | | | | |
| | | | | | 9 | 16 | 3 | 20 | 11 |

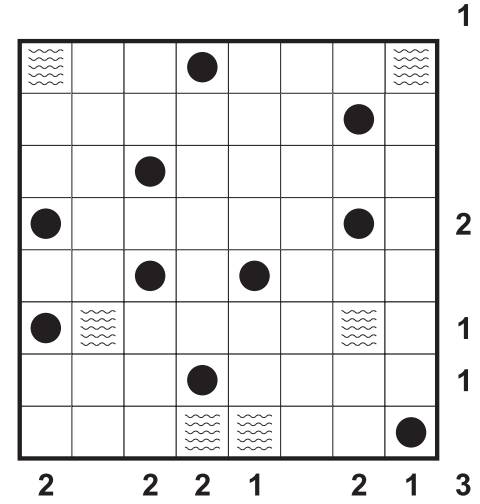
ABC Connection



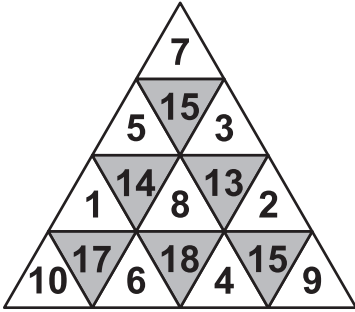
Different Sums



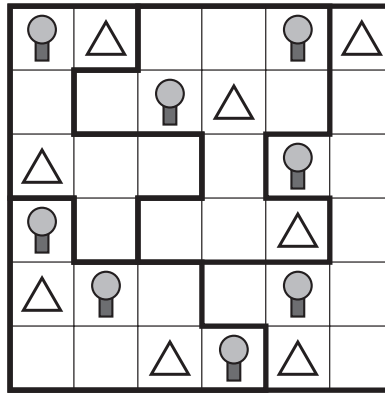
Submarines



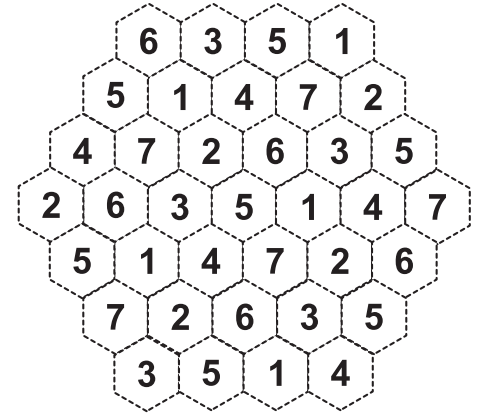
Triangle Math



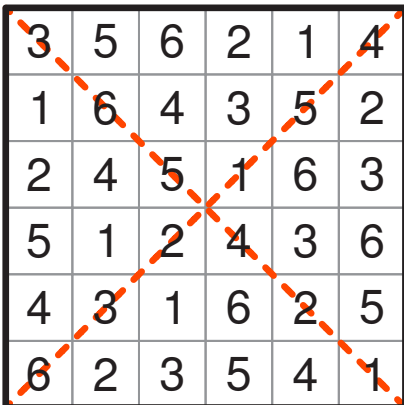
Tent Sector



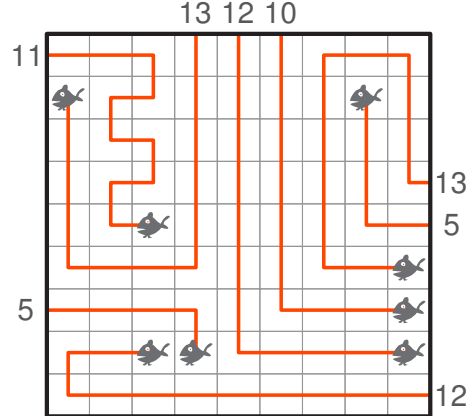
Hexa Seven



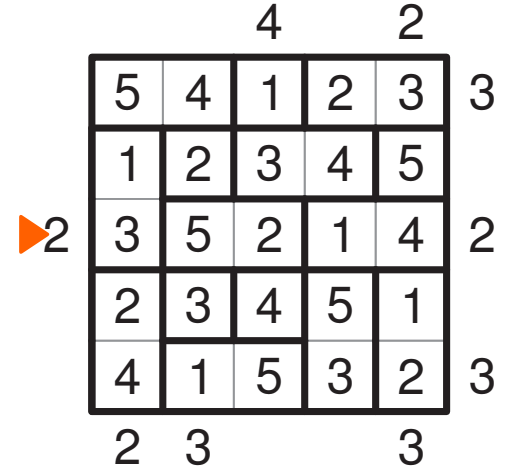
Diagonally Magic Squares



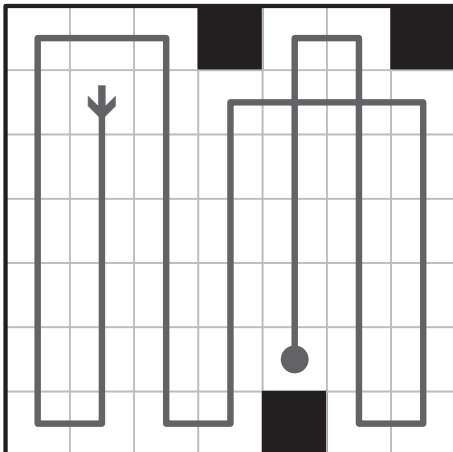
Anglers



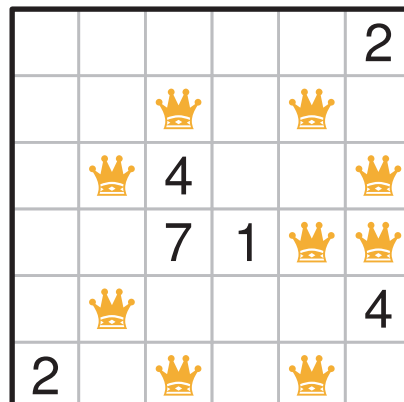
Domino Skyscraper



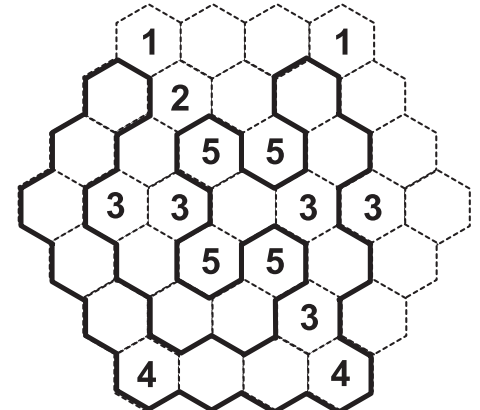
Tiger In the Woods



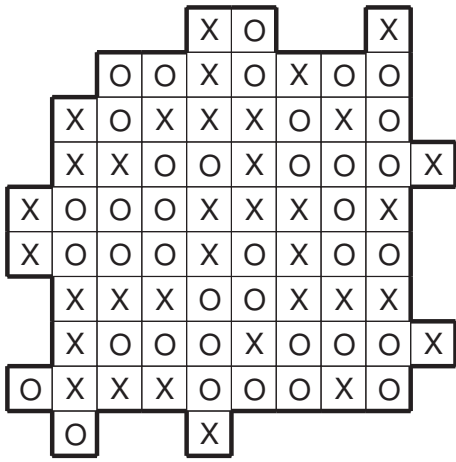
Queens' Park



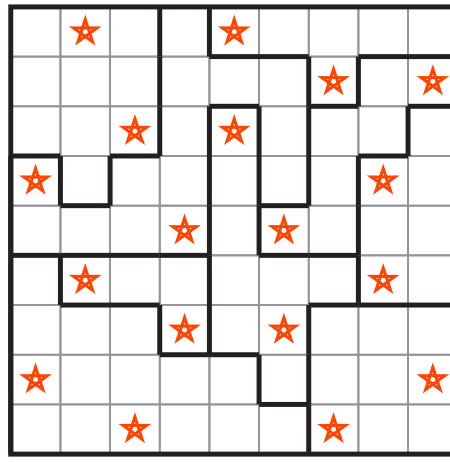
Hexa Fence



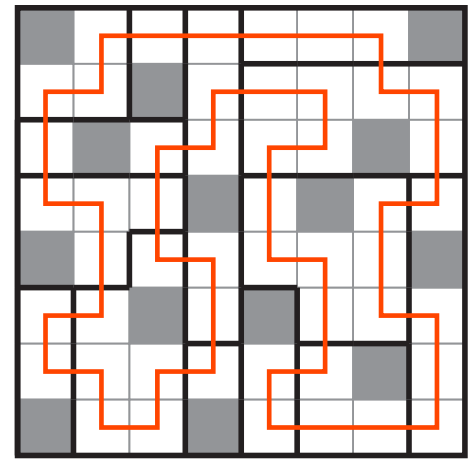
No Four In A Row



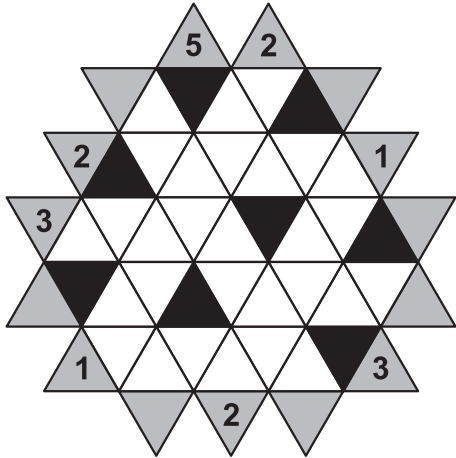
Star Battle



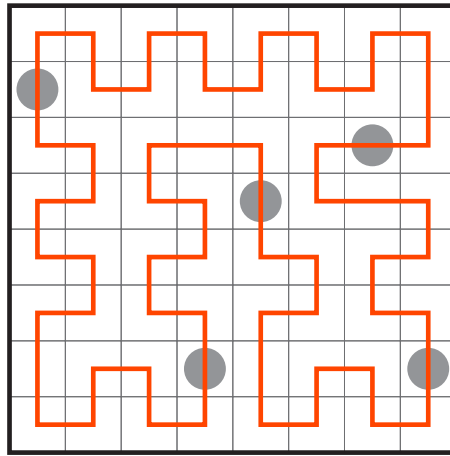
Extra Loopfinder



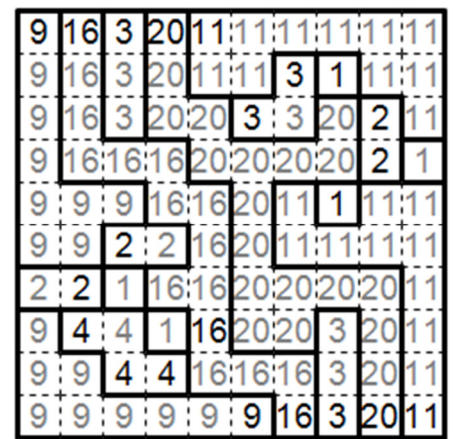
Sunspots



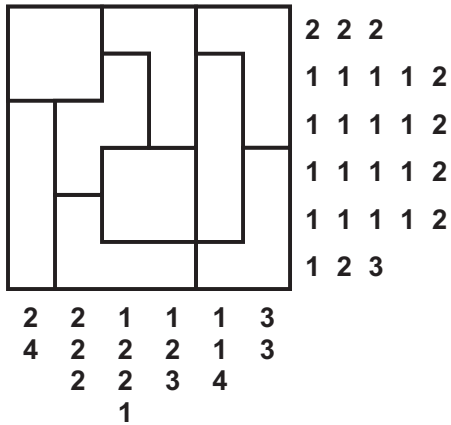
Every Second Straight



Fillomino



Sign Of Four



Fifty-Fifty

