
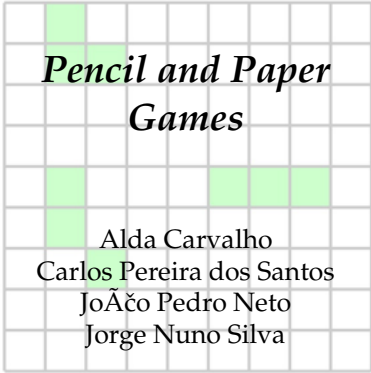


JOKER




*Pencil and Paper
Games*

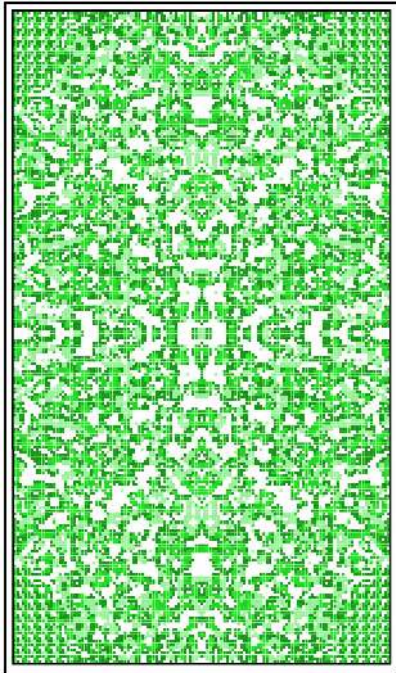


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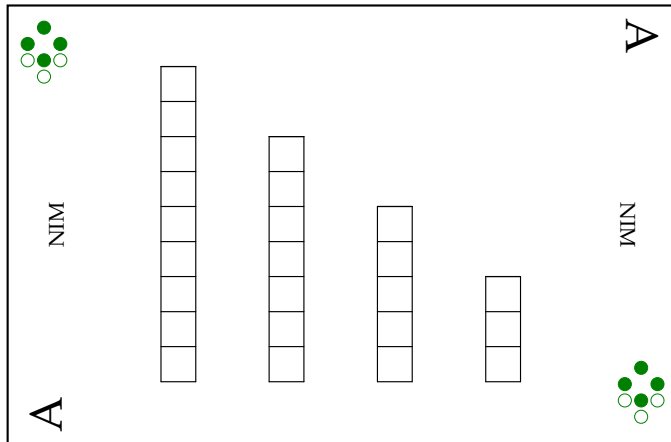


JOKER



Gathering 4 Gardner.
PRESENTS
Celebration of Mind

For more activities, visit: www.CelebrationOfMind.org

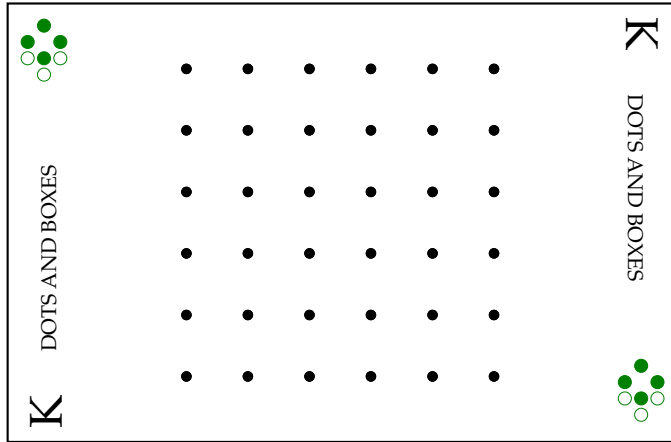



Goal
To be the last to move.

Rules
In this deck, NIM uses four columns with 3, 5, 7, and 9 squares. In the player's turn, she has to paint one or more unpainted squares of a given column.

In the left diagram, the next player has one good move: paint two squares in the leftmost column. This creates a symmetry that can be maintained in all the following adversary moves, which will win the game.

A NIM game board with four columns of 9, 7, 5, and 3 squares. The top two squares of the 9-square column are shaded gray. The board is labeled "NIM" and "A" at the corners. There are green and white circles in the corners.



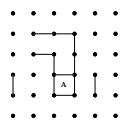


K
DOTS AND BOXES


Goal
To have more squares with the player's initials.

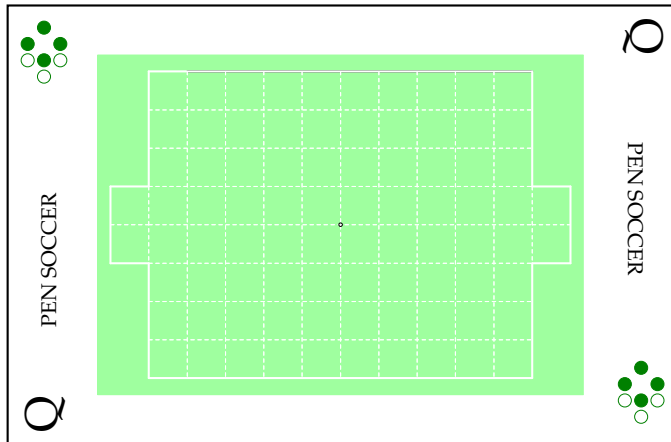
Rules
In the player's turn he joins two adjacent points, previously not connected, with a vertical or horizontal segment. When a player completes a square he writes his initial inside it and moves again. Closing squares is not mandatory.

In the diagram player A has completed a square. Since he must play again, he has the option to close and mark three more squares:



K
DOTS AND BOXES





Q PEN SOCCER PEN SOCCER **Q**

Goal
To cross the adversary's goal line, or stalemate the adversary.

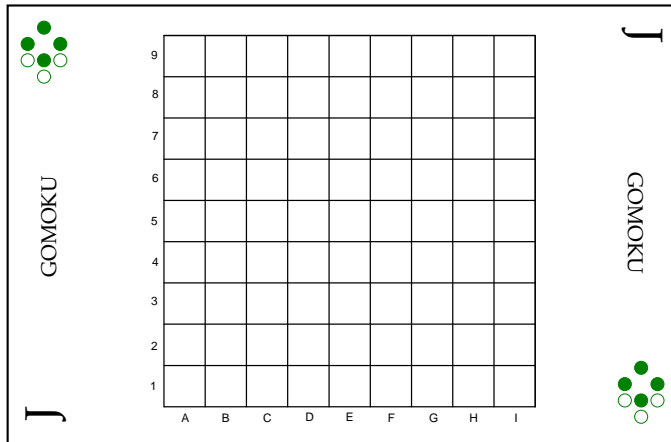
Rules
The ball starts at the central point and circulates after each player kick. A player kicks once per move. Kicks move the ball to a diagonal, horizontal or vertically adjacent point, drawing a segment between these two points. A kick cannot be made at the board's edge or over a previous segment.


When a kick ends at the board's edge or over another segment's endpoint, the player moves again creating a multiple kick.

single kick

multiple kick

PEN SOCCER PEN SOCCER **Q**



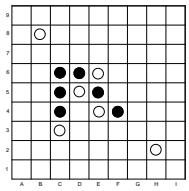


GOMOKU


Goal
To achieve a vertical, horizontal, or diagonal line of exactly five stones.

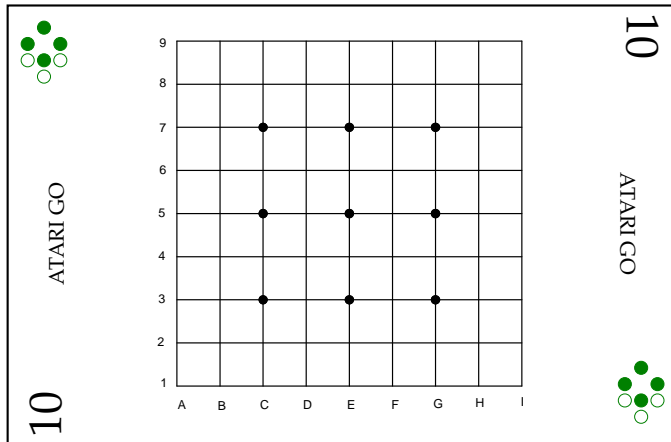
Rules
Black starts drawing a black stone at the central square. Afterwards, each player draws one of her stones on an empty square.

In the diagram Black can draw a stone at C7 creating a double winning threat.



GOMOKU





10

ATARI GO

Goal
To capture one or more enemy stones.

Rules
In the player's turn, he draws a stone of his color at an empty intersection. Black starts.
Horizontal and vertical adjacent friendly stones are part of the same group. A group is captured when it is not adjacent to any empty intersection. Notice that a player can remove the last empty intersection of his own group (thus, losing the game).

In the right diagram, White can capture a black group and winning the game by drawing a stone on any one of the [a] intersections.

10

ATARI GO

9

TRAFFIC LIGHTS

TRAFFIC LIGHTS

9

9

TRAFFIC LIGHTS

Alan Parr

Goal
To make a horizontal, vertical, or diagonal 3 in-a-row of the same color.

Rules
On his turn, a player may:

- place a green stone in an empty square;
- transform a green stone into a yellow stone;
- transform a yellow stone into a red stone;

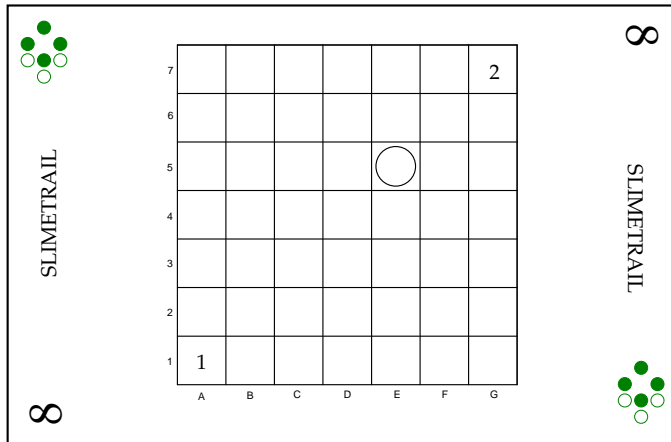
Herein, a green stone corresponds to , a yellow stone to , and a red stone to .

In this position, the next player wins by transforming the middle green stone of the left column into a yellow stone.

TRAFFIC LIGHTS

Alan Parr

9

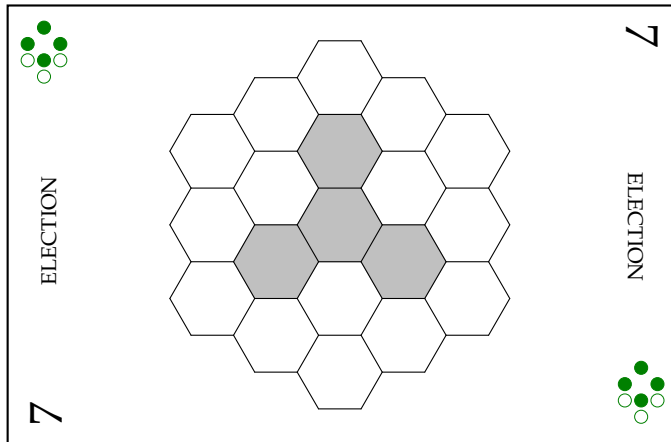


Setup: The white stone starts at E5. Squares marked as [1] and [2] are the final squares of the First and Second player, respectively.

Goal
To have the white stone in the player's final square, or stalemate the adversary.

Rules
On her turn, each player draws a new white stone in an empty square adjacent (horizontal, vertical or diagonal) to its previous position. The previous white stone is then filled to become a black stone.

The diagram shows the first moves of a Slimetrail match (E5-D4, D4-D5, D5-C6, and C6-D7).



7

ELECTION
Bill Taylor

Goal
To dominate the majority of directions.

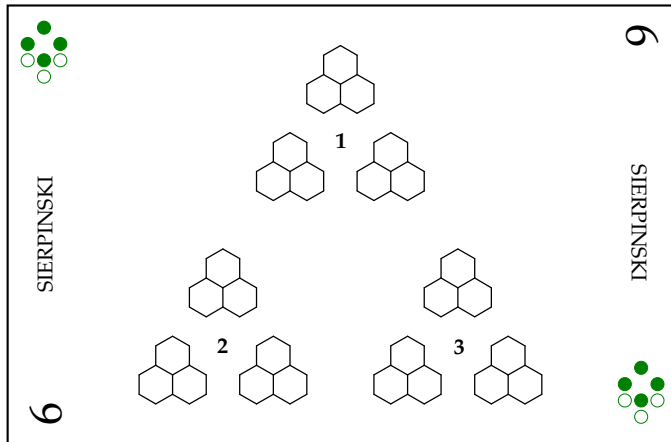
Rules
On each turn, each player draw one or two stones on empty white hexagons. The exact number of stones per turn is given by the sequence 1 2 1 1 2 1 1 2 1 . Black starts.

Hexagonal boards have three directions: one vertical and two diagonals (say, a positive and a negative diagonal). Each direction consists of 5 lines, i.e., there are 5 vertical lines, 5 positive and 5 negative diagonal lines. Each line consists of 3 white hexagons. Everything in the board is odd: hexs per line, lines per direction, number of directions.

A player dominates a line by having a majority of stones in that line. A player dominates a direction by having a majority of lines in that direction.

7

ELECTION
Bill Taylor




6

SIERPINSKI
Bill Taylor

Goal
To dominate two of the larger triangles.

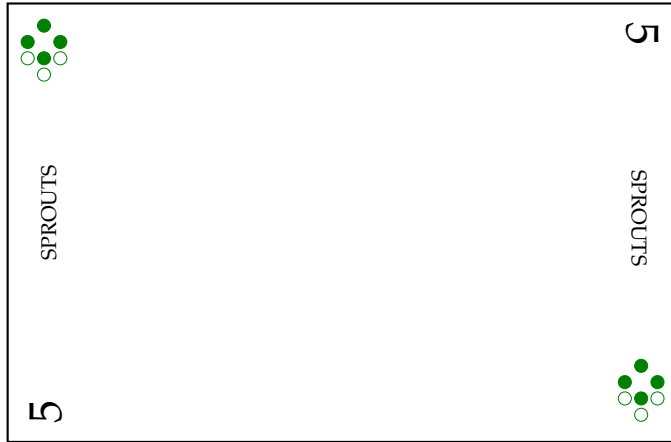
Rules
On each turn, each player draws one or two stones on empty white hexagons. The exact number of stones per turn is given by the sequence 1 2 1 1 2 1 1 2 1 . Black starts.


A player dominates a smaller triangle, i.e., , if it has a majority of friendly stones. A player dominates a larger triangle if it dominates two or three of its smaller triangles.

In the diagram Black moves and wins. White dominates the larger triangle 2, but Black already dominates triangle 3 and can, with the next stone, dominate triangle 1.

SIERPINSKI
Bill Taylor

6



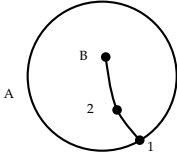



SPROUTS
John Conway & Michael Paterson

Goal
To be the last to move.

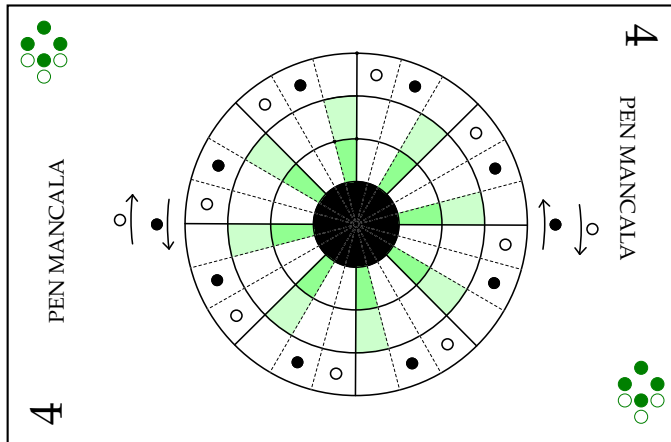
Rules
The game begins with a number of points (in card 5 there are already two points drawn). Each move must unite two of these points (or a point to itself) by a curve line that does not pass through any other point. Then the player marks a new point in that curve. Any point cannot have more than three lines attached to it (nb: every new point starts already with two lines attached).

From points A, B, the first player connected A with A and marked 1. The second player then connected B with 1 and marked 2.





SPROUTS
John Conway & Michael Paterson



4

PEN MANCALA

Goal
The player with more points is the winner.


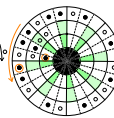
Rules
The board has 8 sectors of 3 lines with 3 cells each. Each cell can contain one stone.

Sectors are filled by the order shown in the diagram. Initially, each player alternatively draw two stones on empty cells.

Black starts. Players seed, ie, draw stones in opposite directions. On each seeding, the player selects a sector with friendly stones, count them and draw one by one in the following sectors (once per sector).

PEN MANCALA

Walter Joris

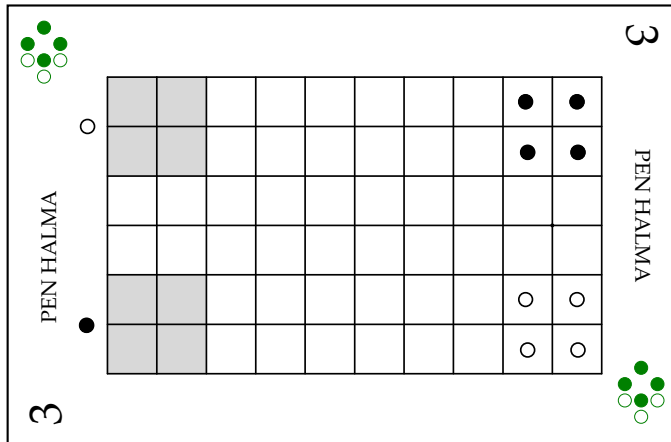
When the board is full, for each sector, stones at the end of the 2nd (3rd) lines count 1 (2) points.

4

PEN MANCALA

PEN MANCALA

Walter Joris



3 PEN HALMA 3

PEN HALMA
Walter Joris


Goal
To draw three stones in the 2x2 grey area diagonally opposed to the player's initial stones. If the game is stalemated wins the player with more stones in his gray area.

Rules
Black starts. Each player, on his turn, can "jump" a stone over any other stone landing on the immediate empty square in that direction (jumps can be vertical, horizontal or diagonal). A new stone is drawn in this empty square. Multiple jumps with the same stone are possible but not mandatory. A player cannot place stones in the adversary's gray area.

3 PEN HALMA 3



2

PIE



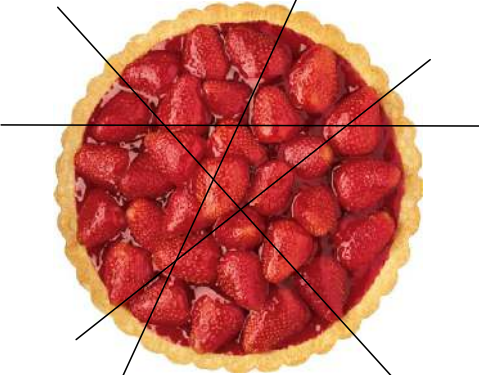
2

Split it in 11 parts with 4 straight cuts





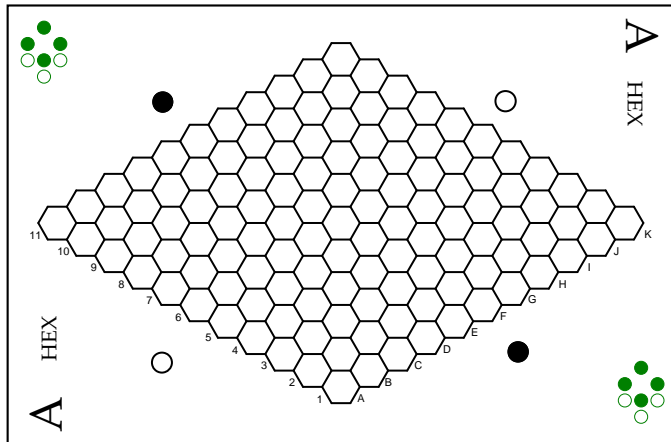
2


PIE



2







HEX
Piet Hein John Nash

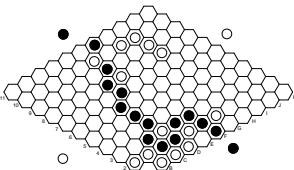

Goal
To create a path connecting your two opposite edges.

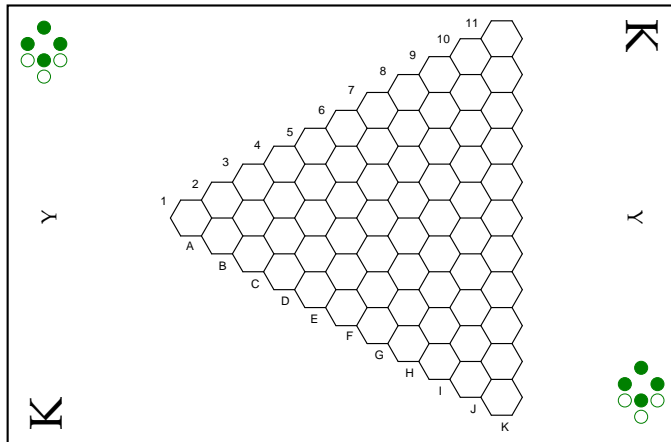
Rules
Black starts. Each player places a stone on an empty hexagon.

Optional Rule: The second player, in her first move, can choose to be Black. This is called the Pie Rule.

In the diagram,
Black moves and
wins at G10.

HEX
Piet Hein John Nash



Goal
To create a path that connects all board edges (this is called a Y).

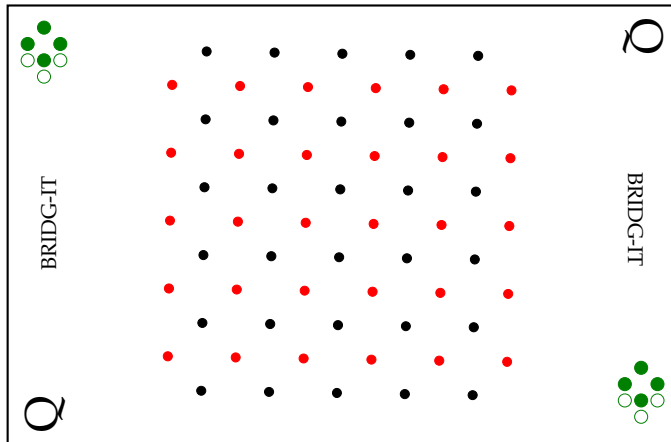
Rules
Black starts. Each player places a stone on an empty hexagon.

Optional Rule: The second player, in her first move, can choose to be Black. This is called the Pie Rule.

The diagram shows a Black Y (the white stones were removed for clarity).

Craig Schensted Charles Titus

Craig Schensted Charles Titus



Goal
To connect the player's two opposite margins.

Rules
Each player, on his turn, draws a segment between two vertical or horizontal adjacent points of his color. Black starts.
A new segment cannot cross enemy segments.

Optional Rule: After three moves, the second player, ie, the Red player, can choose to be Black.

SUDOKU

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

SUDOKU

SUDOKU
Arto Inkala

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

SUDOKU
Arto Inkala

Al Escargot: The world's hardest Sudoku

10 HOUSES

10 HOUSES

10

10

UNITE THE SAME-LETTER HOUSES.
Lines cannot cross each other or touch other houses!

10 HOUSES

10 HOUSES

10

10

9 NAVAL BATTLE FOR ONE

Place all mentioned ships in the grid in a way such that the number of occupied squares, by line and by column, match the given numbers.

Row numbers (left): 1 2 1 3 2 2 3 1 5 0

Column numbers (top): 3 2 2 4 2 1 1 2 3 0

Ship icons (right):

- Ship 1: Length 4, oriented vertically (indicated by a small square above the ship).
- Ship 2: Length 3, oriented horizontally (indicated by a small square to the left of the ship).
- Ship 3: Length 2, oriented horizontally (indicated by a small square to the left of the ship).
- Ship 4: Length 1, oriented horizontally (indicated by a small square to the left of the ship).

9 NAVAL BATTLE FOR ONE

9 NAVAL BATTLE FOR ONE

jaime Pomacltik

Row numbers (left): 1 2 1 3 2 2 3 1 5 0

Column numbers (top): 3 2 2 4 2 1 1 2 3 0


Ship icons (right):

- Ship 1: Length 4, oriented vertically (indicated by a small square above the ship).
- Ship 2: Length 3, oriented horizontally (indicated by a small square to the left of the ship).
- Ship 3: Length 2, oriented horizontally (indicated by a small square to the left of the ship).
- Ship 4: Length 1, oriented horizontally (indicated by a small square to the left of the ship).

9 NAVAL BATTLE FOR ONE

jaime Pomacltik






PRODUCT
Nick Bentley

8

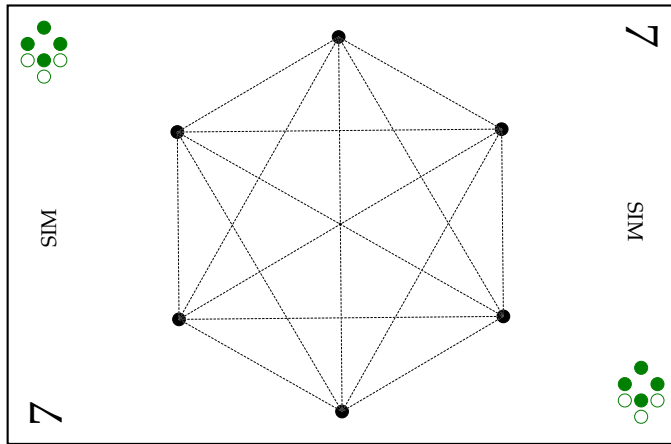
8

PRODUCT
Nick Bentley



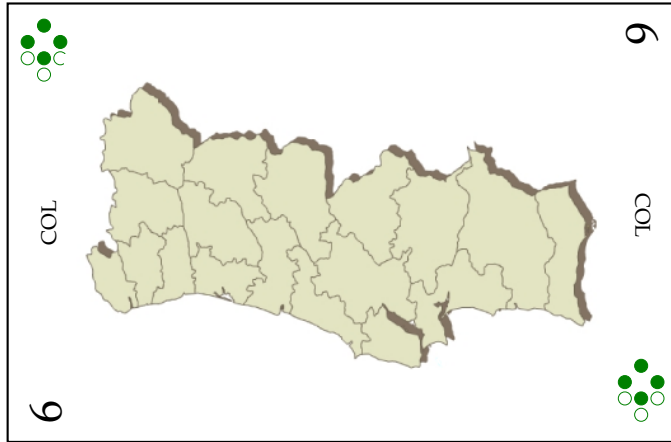
Goal
When the board is full, the winner is the player with the highest product of the sizes of his two largest group. When the products of the two players are equal, the winner is the player with less stones on the board.


Rules
Black starts by placing one stone of either color on an empty hex. Afterwards, both players place two stones of either color on empty hexes.



Goal
A player loses if he draws a triangle of his color.

Rules
The game begins with the board of card 7 . Each player, on his turn, unite two vertices with his color. If playing with just one pen, one player should use dashed lines.





COL
Colin Vout


6

Goal
Be the last to move.


Rules
This game can be played on any map containing regions separated by lines or frontiers. Herein we use the map of Portugal.

Each player, on her turn, marks (if possible) one region with her color. Two adjacent regions cannot be marked by the same player.

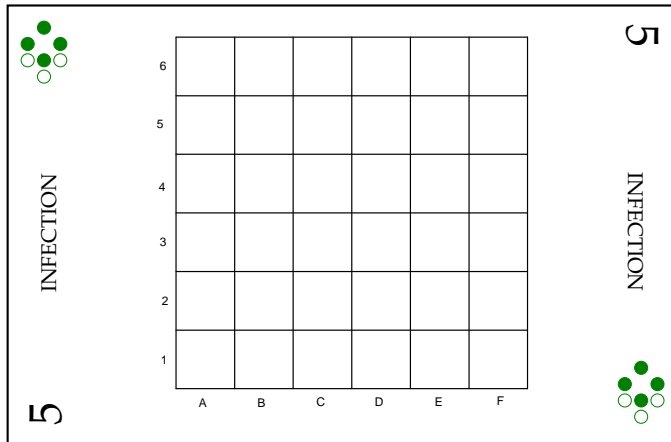
In this example, player X just marked Algarve (the southernmost region) and won.



COL
Colin Vout



6



5

INFECTION
Walter Joris

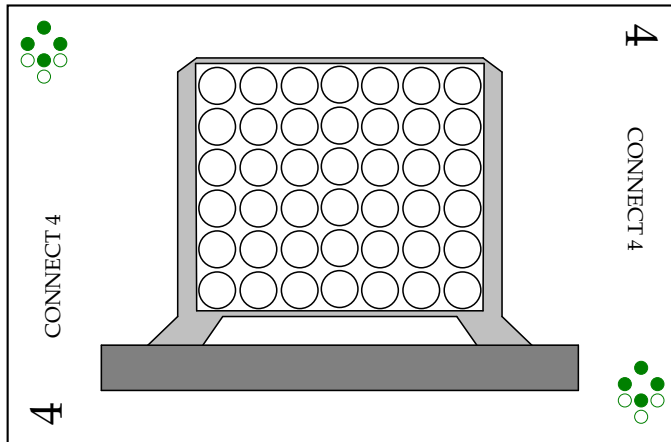
Goal
Bacteria (white stones): to infect at least half of the board.
Antibodies (black stones): to prevent Bacteria to win.

Setup: Bacteria at C5, D5, C6, D6. Antibody at A1.

Rules
Bacteria starts. Each player, on his turn, draws a new stone on an square adjacent (vertical, horizontal or diagonal) to one of his stones. It is also possible to "jump" a stone over any other stone landing on the immediate empty square in that direction (jumps can be vertical, horizontal or diagonal). A new stone is drawn in this empty square. If an antibody jumps over a bacteria, that bacteria is marked as dead. No stone can jump over dead bacteria. A stone, after its first jump, may optionally continue to jump.

INFECTION
Walter Joris

5



4

CONNECT 4

4

CONNECT 4

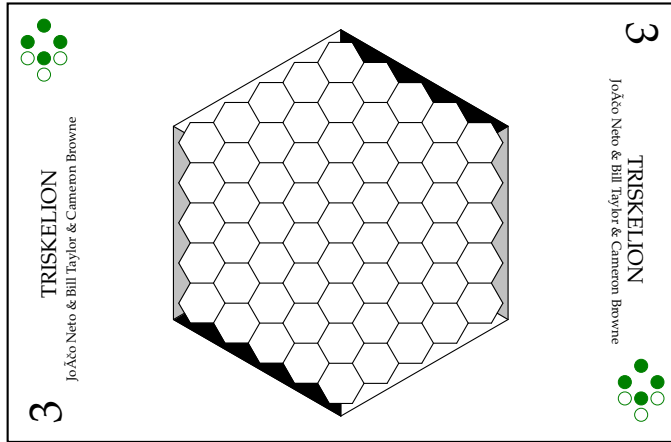
Goal
To make a vertical, horizontal, or diagonal 4 in-a-row with friendly stones. If no player achieves it when the board is full, the game is declared a draw.

Rules
Black starts. Each player, on her turn, places a new stone in any column still with empty cells. This new stone must be placed as low as possible (as if suffering the effects of gravity).

In the diagram, the new black stone creates a winning double threat.

4

CONNECT 4



3

TRISKELION

João Neto & Bill Taylor & Cameron Browne

3

TRISKELION



João Neto & Bill Taylor & Cameron Browne

Goal
 To have the player's two opposite board edges connected by a path of same-color stones. If two or more board edges are simultaneous connected, the mover wins if he has one of those colors. Otherwise the next player wins. A player can also win by making a Y, ie, connect three non-adjacent edges.

Rules
 There are white and black stones, and there are three players (White, Black, Gray). Each player draws a stone on an empty hex. The first move draws a black stone. Afterwards, colors alternate.

2



Cats & Dogs

2

2

Cats & Dogs
Simon Norton

Goal
Be the last player to move.

Rules
Black starts by placing a black stone on the central 2x2 area. Then White places a white stone on an empty square outside that area. Afterwards each player, on her turn, must place a friendly stone on an empty square not adjacent (horizontal or vertical) to an enemy stone.

2