

### Math Game directions:

	A	B	C	D	E	F	G	H	I	J
1	■	■		■			■	■	■	■
2				■						
3	■			■		■	■	■		■
4	■		×							■
5	■					×	×			
6	■	×				■		×		×
7				×		■				×
8	×	×						×		■
9										
10					■	■	■	■	■	■

Example: A1, and B1 have a ship. D7 is a miss.

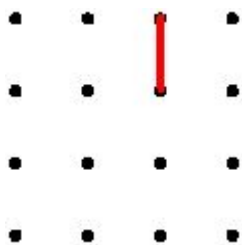
Battleship (also Battleships or Sea Battle<sup>[1]</sup>) is a **strategy** type **guessing game** for two players. It is played on ruled grids (paper or board) on which each player's fleet of ships (including battleships) are marked. The locations of the fleets are concealed from the other player. Players alternate turns calling "shots" at the other player's ships, and the objective of the game is to destroy the opposing player's fleet.

*Battleship* is known worldwide as a **pencil and paper game** which dates from **World War I**. It was published by various companies as a pad-and-pencil game in the 1930s, and was released as a plastic **board game** by **Milton Bradley** in 1967. The game has spawned electronic versions, video games, smart device apps and a **film**.

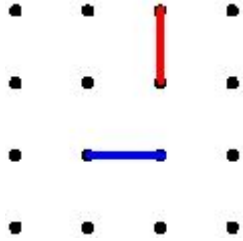
### DOTS AND BOXES

Dots and Boxes is a two person game played on a grid of dots. Each player, in turn, will draw a horizontal or vertical line between 2 unconnected adjacent dots. If any player draws the fourth side of a 1 x 1 box, he writes his initial or other marker in that box and takes another turn. When all possible lines have been drawn, the player who completed the most 1 x 1 boxes wins.

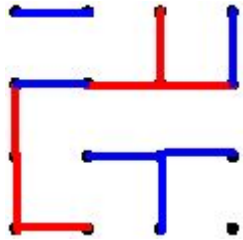
A goes first by drawing a line that connects two adjacent dots.



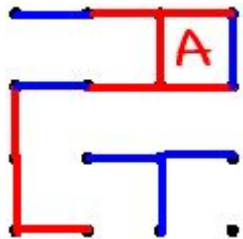
B goes second by drawing a line that connects two different adjacent dots.



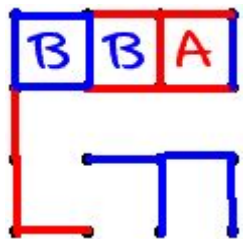
A and B continue to take turns, each one drawing a line between two unconnected adjacent dots.



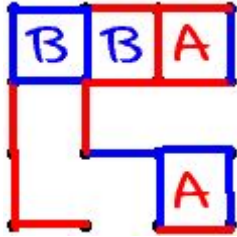
A finally draws the fourth side of a box and writes his initial in the box. He completes his turn by drawing one more line.



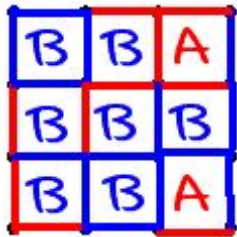
B draws the fourth side of a box and places his initial in the box. He then draws one more line that completes a second box and writes his initial in that box. He completes his turn by drawing another line.



A draws the fourth side of a box and writes his initial in the box. He completes his turn by drawing one more line.



B draws the fourth side of a box and writes his initial in the box. He draws another line, which completes another box. He continues to draw lines that complete boxes until all possible lines have been drawn.



B has won the game.

### PIPELAYER

Pipelayer is a two person game played with two grids of dots that are slightly offset from one another, as shown in the example below. Each grid of dots is one dot longer in one dimension than the other dimension.

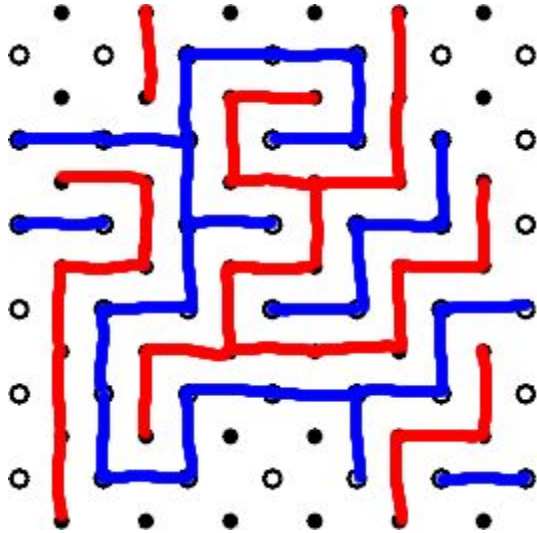
One player will take the black dots, and one player will take the white dots. Each player should also play with a different color pen or pencil.

The players take turns moving by connecting two dots of their own color. The dots must be adjacent horizontally or vertically. Diagonal plays are not allowed.

No move may draw across another move.

To win a player must make a continuous connection from one side of the board to the other in the long direction for his color of dots. For the blue player in the example this is from left to right; the red player is trying to connect top to bottom. The first player to make a continuous connection across his grid in the longer direction wins.

In this example, blue has won.

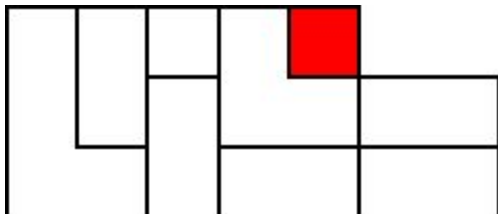


## COL

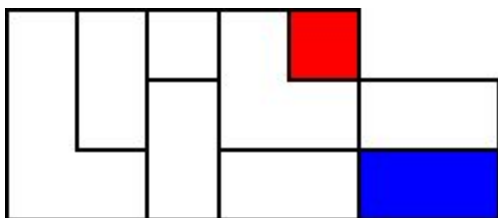
Col is a map coloring game for two players. Each player selects a different color to color in sections of the map. On each player's turn, the player will color in one section of the map in his color. No two sections that touch on an edge may be given the same color. Sections that touch only at a corner may have the same color. The winner is the last player with a legal move.

Here is an example game. The first player is red. The second Player is blue.

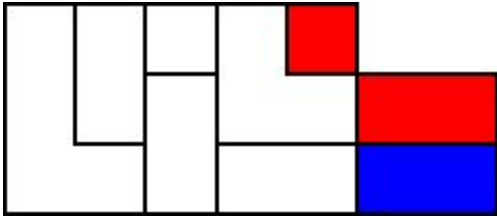
Red goes first. Red may color in any section of the map.



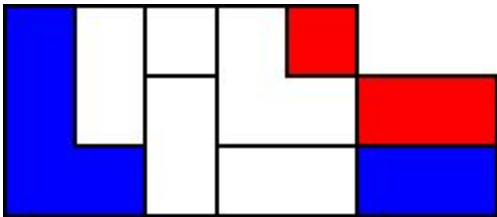
Blue takes a turn. Blue may color in any section of the map that has not already been colored in.



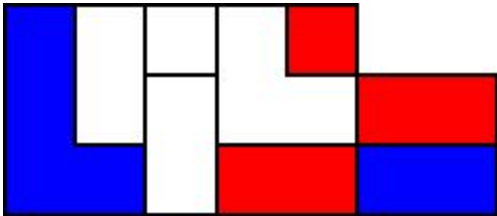
Red takes a turn. Red may not color in a section that touches another red section, except at a corner.



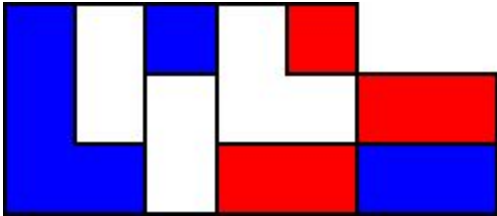
Blue takes a turn. Blue may not color in a section that touches another blue section, except at a corner.



Red takes a turn.

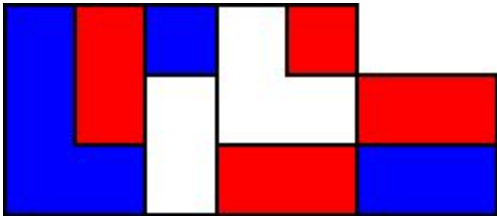


Blue takes a turn.



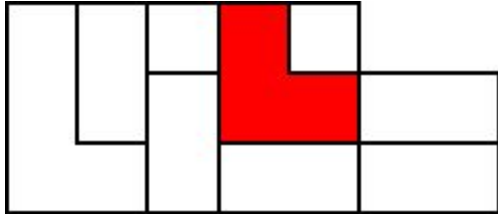
Red takes a turn.

Blue has no legal moves remaining, so red wins.

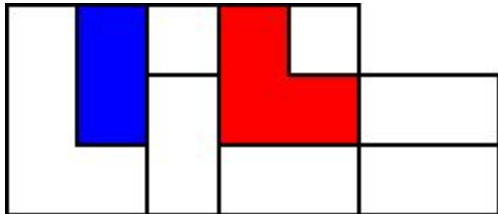


There is a variation of the game, called Snort, in which no two touching sections may have different colors. A game of Snort might look like this:

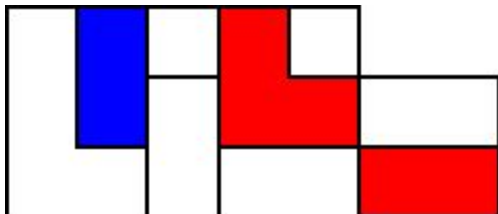
Red starts by coloring in the section that blocks the largest number of potential blue moves.



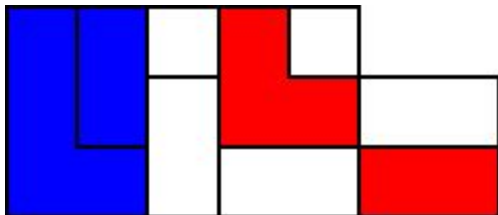
Blue counters by blocking the largest number of potential red moves, and leaving as many blue moves as possible.



Red has 4 legal moves. He takes one that is also a legal blue move, preventing blue from taking that section.



Blue takes his only remaining legal move.



Red takes one of his remaining legal moves. Blue has no remaining legal moves. Red wins.

