Atari Go

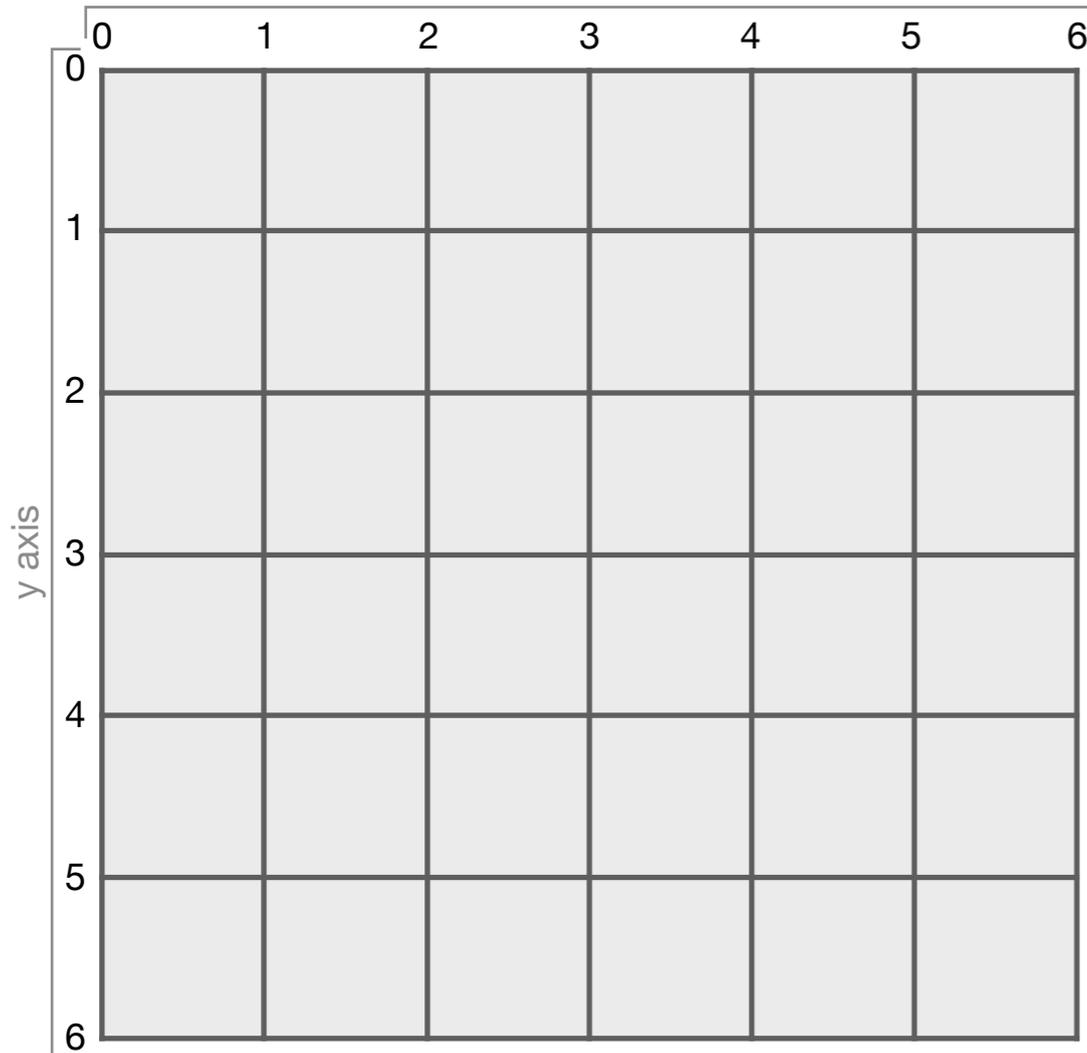x axis

Version 1.0.1, 12 December 2018

Atari Go, a.k.a. Capture Go, is a simplified version of Go, usually proposed to beginners so as to learn the basic rules of Go.
Improve the Wikipedia page about it: https://en.wikipedia.org/wiki/Capture_Go
(For help in editing Wikipedia: https://en.wikipedia.org/wiki/Wikipedia:FAQ/Editing)

the board

y axis

Rules

1. Two teams, Black and White, take turns placing a *stone* (game piece) of their own color on a vacant point (intersection) of the grid on the board
2. Once placed, stones *do not* move
3. A vacant point adjacent to a stone is called a *liberty* for that stone
4. Connected stones formed a group and share their liberties
5. A stone or group with no liberties is captured
6. Black plays first
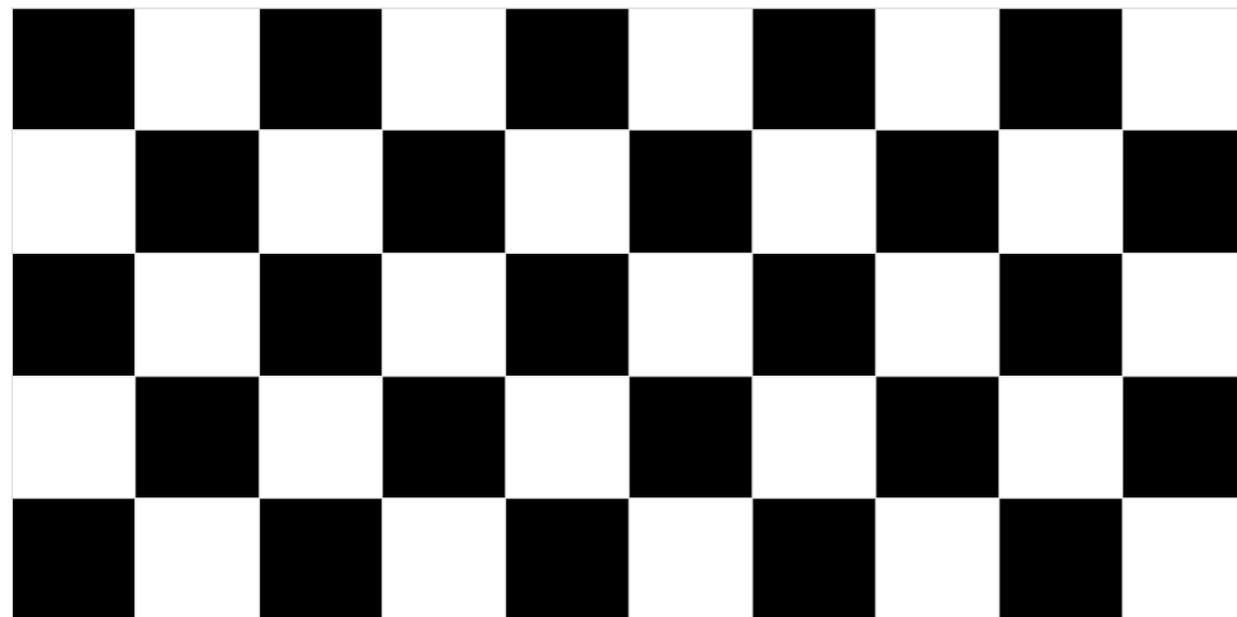7. The first team to capture anything wins
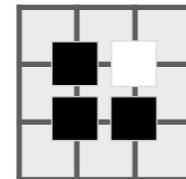
The White stone has 2 liberties, while the Black group has 6 liberties
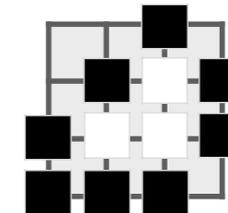
White has been captured (no more liberties available), Black wins
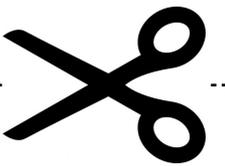
stones to play

cut all the black and white squares to get the stones

Bonus

Implement the function below in Python, that takes in input the colour of the player who has to play the turn (parameter `colour`), the sets of coordinates (i.e. sets of tuples) of all the black stones (parameter `black`) and white stones (parameter `white`) already positioned on the board, and returns the `x, y` coordinate (a tuple) of a free intersection where to place a new `colour` stone. The coordinates of the various positions of the board are those ones defined in "*the board*" in this paper.

```python
def place_stone(colour, black, white):
    # study the board and calculate the
    # best place where to position the stone
    return x, y  # the coordinates of the new stone
```