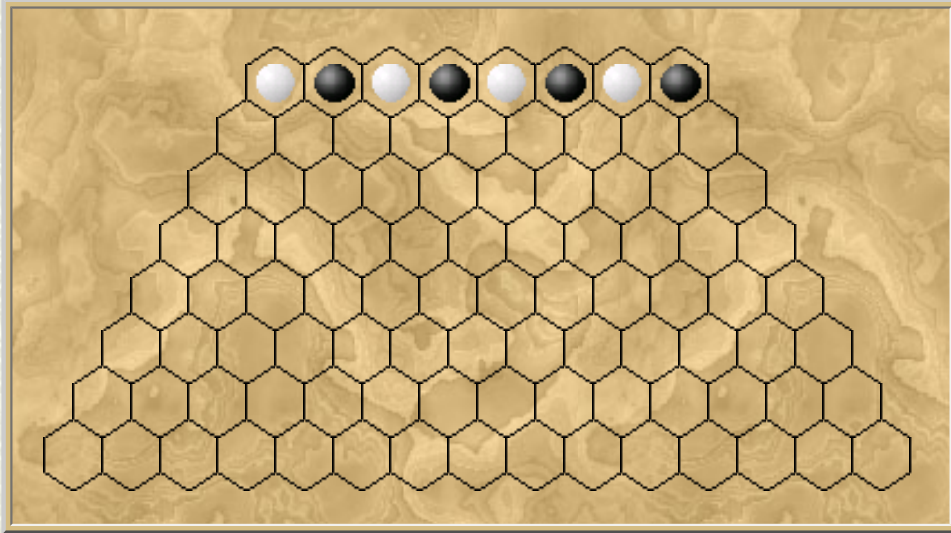


# CASCADES

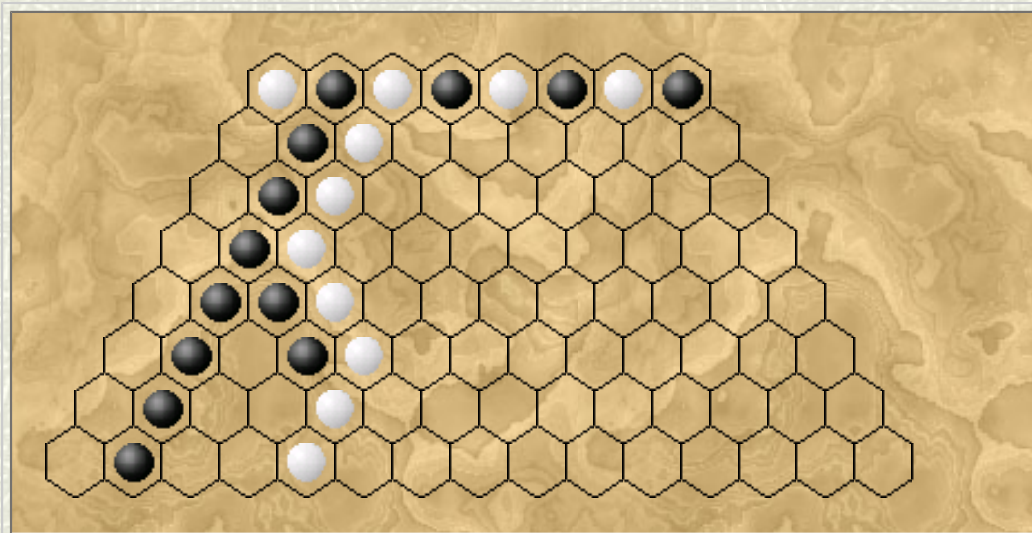
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The game is played on the following hex board, with the following setup:



- ⚡ **DROP** - Each stone is dropped on an empty cell, next to and below a stone of the same color
- ⚡ **MOVE** - First player drops one stone at the first turn, then each player drops up to two stones (he may pass).
- ⚡ **GOAL** - Wins the player with more stones on the bottom row.

Some words from the author: *For some time now [Apr 16, 2001] I have been toying with the idea of trying to model/abstract the flow of water carving out a mountainside. A related geometric pattern is the fractal on certain seashells. [...] The image in my mind is a root-pattern forming or tributaries of a river. [...] The game generalizes to any  $M \times N$  board. Without more experience playing and "figuring it out" I don't know how  $M$  and  $N$  affect playability. My intuition suggests  $8 \times 8$  (really  $8 \times 15$  if you measured it at the bottom) is already nontrivial and  $10 \times 10$  might be "tournament".*



## An example

On the left, the game is already defined. White does not need to worry at this point with its top left stone, since the bottom left cell cannot be taken by Black. The same happens with the next 3 bottom cells, which are Black, whatever White plays.

The author also suggests a variant: Stones can be dropped at any empty cell, but a stone cut off from receiving (downward or sideways) flow (i.e., if there is no possible path to connect it to the top row, and there is no consideration of future enemy stone captures) is immediately removed. Another change would be to score all territory occupied, instead of just counting the bottom row.

There is a ZRF to play [Cascades](#) with [Zillions](#).

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