## SUBSUME





Figure 1



Figure 2







Figure 3b



Figure 4

**INTRODUCTION** Subsume is a two-player game played on a hexagonal board of any size, initially empty. The two players, Red and Blue, take turns placing a stone of their own color onto the board, starting with Red. Sometimes a player concludes his turn with the removal of stones of either or both colors. Mark Steere designed Subsume in February 2024.

## DEFINITIONS

**Group** - Maximally inclusive group of interconnected stones of either or both colors.

**Loop** - Closed, single width path of at least six stones, of either or both colors. There are no kinks in a loop. No 30 degree turns. Figure 1 shows an example of a loop comprised of black stones for demonstration purposes.

**Maximally encompassing loop** - Loop that subsumes any sub-loops in the same group. There is at most one possible maximally encompassing loop in a group. Figure 2 shows a group comprised of black stones for demonstration purposes. The green line shows the maximally encompassing loop in the group.

**PLAY** Place a stone onto any unoccupied cell which is: a. adjacent to at least as many enemy stones as friendly stones, and b. not surrounded by a loop.

Passing is not allowed, but if you don't have any placements available, your turn is skipped.

**SUBSUME** If your placement creates a new maximally encompassing loop, and said loop is comprised of stones at least half of which are your color, flip all enemy stones in the loop to your color. If less than half of the stones in the new, maximally encompassing loop are your color, flip all friendly stones in the loop to the enemy color.

Having formed a new, maximally encompassing loop, remove from the board all of the stones it surrounds.

In **Figure 3a**, Red has placed the stone marked with a green dot, forming a maximally encompassing loop comprised of an equal number of red stones and blue stones. In Figure 3b, Red has flipped all of the blue stones in the loop to red stones, and has removed all stones from within the loop.

**OBJECT OF THE GAME** Create a loop comprised entirely of stones of your color that occupies more than half of the perimeter cells. In Figure 4, Blue has won the game by forming a loop occupying 10 of the 18 perimeter cells.

**DESIGN NOTES** Stones placed within a loop would never contribute to a subsuming loop, so such placements are ruled out as both unconstructive and cluttering. The removal of surrounded stones doesn't really affect the game. It just keeps the board clean.

The rule requiring placements forming at least as many adjacencies with enemy stones as friendly stones is an anti-blob rule. The game is playable without this rule, strictly speaking, but ends up being two big blobs growing and eventually facing off.

**AUTHOR'S NOTE** Feel free to publish this rule sheet, and to program the game of Subsume for online or offline play. There is no licensing fee, and no royalties are expected. However please don't change the name or the rules, and please attribute the game to me, Mark Steere. My other games can be found at marksteeregames.com.

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