DIFFUSION

by Mark Steere
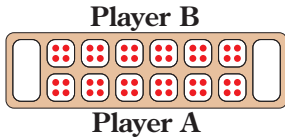
Player B

Player A

Fig. 1 - Initial Setup
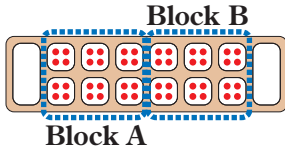
Block B

Block A

Fig. 2 - Blocks

3a)

3b)

Fig. 3 - Distribute

4a)

4b)

Fig. 4 - Distribute

5a)

5b)

Fig. 5 - Overflow

6a)

6b)

Fig. 6 - Player B wins.

Block B

Block A

Fig. 7 - Alternative Blocks

8a)

8b)
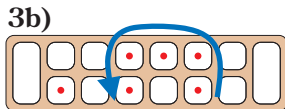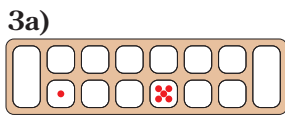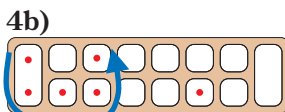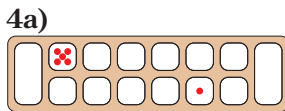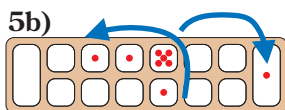
Fig. 8 - Player B wins Diffusion v2.

INTRODUCTION Diffusion is a two player Mancala game. The board has a 2x6 array of pits and two stores, one at each end of the board. 48 like-colored stones are used, initially arranged as shown in Figure 1.
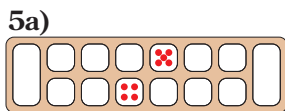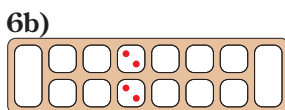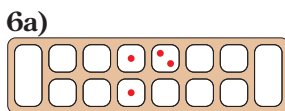
The pits are divided into two blocks as shown in Figure 2. Each player owns the block to his left. Draws cannot occur in Diffusion. Mark Steere designed Diffusion in January, 2006.

MOVES Players take turns scooping and distributing stones. A player scoops all of the stones out of any one of the 12 pits and distributes them into adjacent pits as shown in Figure 3. Starting at the most clockwise pit, stones are distributed one by one in the counterclockwise direction.

Treat a store as two pits when distributing stones, as shown in Figure 4. The number of stones in a store has no relevance in the game. They're literally just used for storage.

OVERFLOW Each pit can hold a maximum of 5 stones. If the addition of a stone to a pit would create a total of 6 stones in the pit, put the 6th stone in one of the stores instead. It doesn't matter which store you put it in.

In Figure 5, 4 stones are distributed in the usual manner except where the addition of a stone would create a 6 stone pit. In this case, the 6th stone is instead placed in one of the stores.

OBJECT OF THE GAME If at any time one of the two blocks becomes completely vacant, the owner of that block wins. In Figure 6, Player B wins since the right block becomes vacant.

DIFFUSION V2 In the variant **Diffusion v2** two 1x6 blocks are used instead of the two 2x3 blocks, as shown in Figure 7. In Figure 8, Player B wins since the upper 1x6 block becomes vacant.

AUTHOR'S NOTE Feel free to publish this rule sheet, and to program the game of Diffusion for online or offline play. No licensing fee or 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.
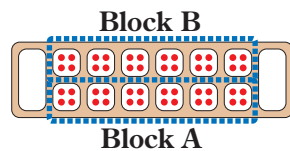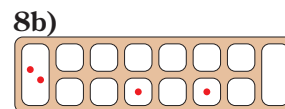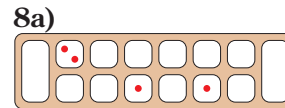
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