

# DIFFUSION

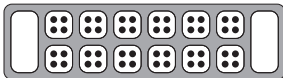


Fig. 1 - Initial Setup

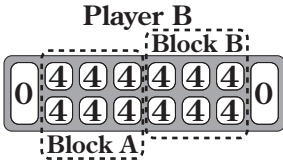


Fig. 2 - Blocks

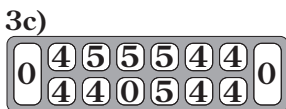
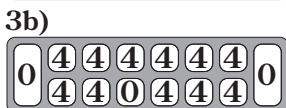
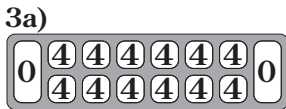


Fig. 3 - Edge Move

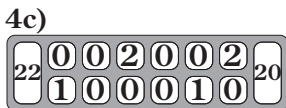
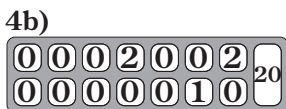
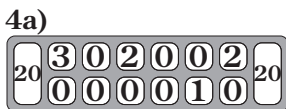


Fig. 4 - Corner Move

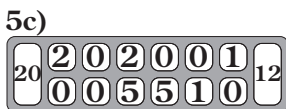
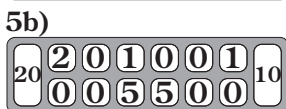
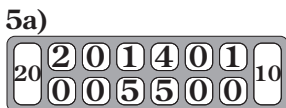


Fig. 5 - Max 5-Count

**INTRODUCTION** Diffusion is a two player game which employs a Mancala board and a set of like-colored stones. Here a 2x6 board with 48 stones will be used. Initially the board is set up with four stones in each of the small pits and no stones in the large pits, as shown in Figure 1. Two 2x3 “blocks” are outlined in Figure 2. Each player owns the block to his left. Numbers indicate the stone count in each pit. Diffusion is a unique, robust addition to the family of Mancala games. Draws and ties cannot occur in Diffusion. Mark Steere invented Diffusion on January 20, 2006.

**OBJECT OF THE GAME** If, at the conclusion of a turn, one of the two blocks is completely vacated, the owner of that block wins.

**MOVES** Players take turns making moves. You begin your turn by scooping all of the stones out of any one of the 12 small pits which contains stones. (There will never be more than five stones in a small pit.) You conclude your turn by distributing those stones into pits **adjacent to and surrounding** the newly emptied pit, as described in the following sections. Players cannot pass on their turn. There will always be at least one move available.

**STONE DISTRIBUTION FOR EDGE SMALL PITS** Having scooped all of the stones out of one of the four non-corner small pits in your **near** row, you must distribute those stones into small pits which are orthogonally or diagonally adjacent to the newly emptied pit as follows: Place one stone into the small pit immediately to the **right** of the emptied pit, and proceed counterclockwise around the emptied pit, depositing all of the remaining stones, one stone per small pit, in a continuous sequence (no gaps.) Figure 3 shows such an example.

Having scooped all of the stones out of one of the four non-corner small pits in your **far** row, you must distribute those stones in the following manner: Place one stone into the small pit to the **left** of the emptied pit, and proceed counterclockwise around the emptied pit, depositing the remaining stones.

In summary, start at the clockwise limit and distribute the stones in sequence, counterclockwise around the emptied pit.

**STONE DISTRIBUTION FOR CORNER SMALL PITS** Having scooped all of the stones out of one of the four corner small pits, treat the adjacent large pit as two empty small pits, and follow the distribution rules described in the preceding section. Figure 4 shows such an example.

**NO SIX-COUNT SMALL PITS** If the addition of a stone to a small pit would increase the number of stones in that small pit to six, you must add that stone to one of the large pits instead. Then resume distributing the remaining stones, starting with the next small pit in the counterclockwise direction around the emptied pit. Figure 5 shows such an example. As noted earlier, a small pit should never contain more than five stones.

**AUTHOR’S NOTE** Feel free to copy, distribute, profit from, or do whatever you like with this document and the game of Diffusion. However, please don’t change the name or the rules, and please attribute the game to me, Mark Steere. Other games I invented: Quadrature, Tanbo, Impasse, and Byte. For more information see [diffusiongame.com](http://diffusiongame.com).