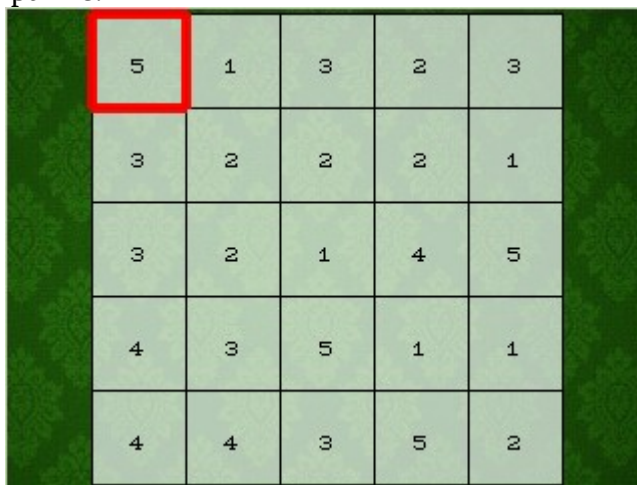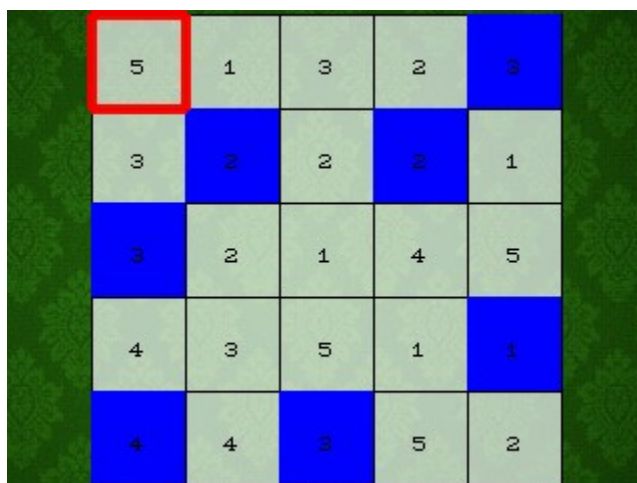## How to Play Hitori

Rules:

      Hitori is a number elimination game. You start off with all the numbers and your goal is to mark numbers such that no un-marked number appears more than once in any row or column. Also no two markings can be adjacent (diagonal is ok). As well as you cannot isolate un-marked cells. Meaning you should be able to go from any un-marked cell to any un-marked cell by going through un-marked adjacent cells.

      Here is an example puzzle:

5	1	3	2	3
3	2	2	2	1
3	2	1	4	5
4	3	5	1	1
4	4	3	5	2

You'll notice some rows and columns have some of the same numbers. Here is a solution to that puzzle:

5	1	3	2	3
3	2	2	2	1
3	2	1	4	5
4	3	5	1	1
4	4	3	5	2

      Now notice that on every row and every column the un-marked numbers are unique; there are no duplicates. Also every un-marked cell is touching every un-marked cell.

      In nHitori there is Solution Helper which simply does the remedial task of highlighting the duplicates for you. By default it is turned on; but if you don't want it; you can easily turn it off in the Options.

      Notice in the picture below there is a gray highlight. It is on the cells that have a un-marked duplicate in either that cells row or column.
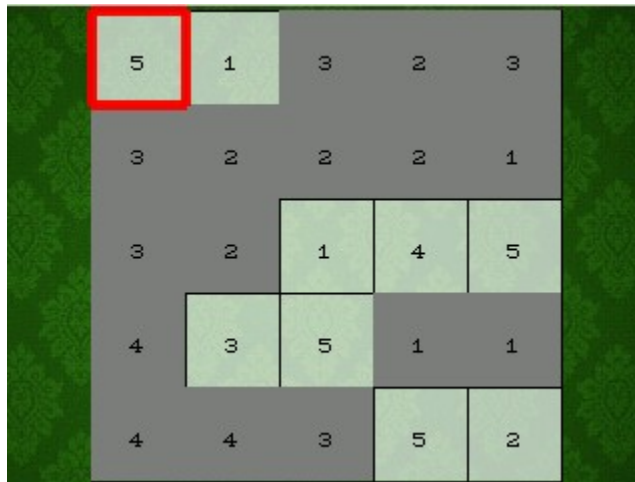
   With Solution Helper when you mark a cell such that there is no longer a duplicate on another cell; the helpful highlighting will go away.

Playing the Game:
   There are some techniques on how to start a puzzle. I'll walk you through solving a simple puzzle.

   Notice in this puzzle in the top row there is a number (3) followed by another number (2) followed by the first number (3) again.
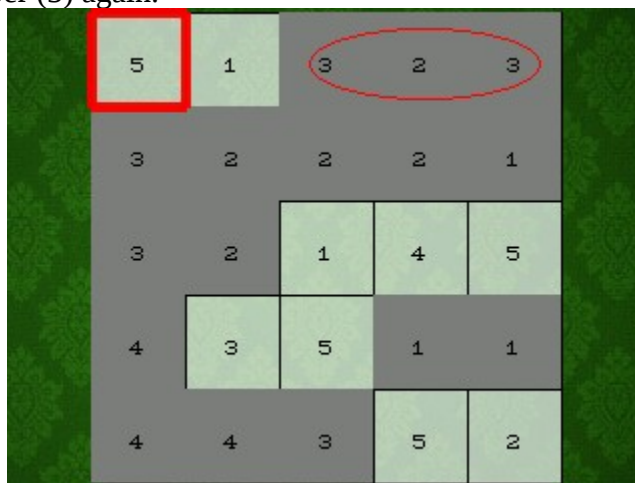
   I need to mark duplicates and so I must mark one (or both) of the 3's; but I don't know which one. But regardless of which 3 is marked the 2 cannot be marked because if it were I'd have two cells marked that are adjacent to each other.

   So since the 2 cannot be marked; all the other 2's on the same row/column must be marked. This is such that there won't be any duplicate 2's on that row/column. So I mark the 2 on the second row.

5	1	3	2	3
3	2	2	**2**	1
3	2	1	4	5
4	3	5	1	1
4	4	3	5	2

Notice how once I marked the 2; the 2 above it on the first row is no longer highlighted. That means all duplicate 2s on that row/column have been marked.

From the Solution Helper I see to both sides of the marked cell are highlighted meaning there are duplicates of those numbers in each of their respective row/columns. And since I cannot have two adjacent cells marked; those cells cannot be marked. So I mark the corresponding cells.

5	1	3	2	3
3	**2**	2	**2**	1
3	2	1	4	5
4	3	5	1	**1**
4	4	3	5	2

Sometimes it may take multiple markings if there are many duplicates on the same row and column.

Again I have a highlighted cell next to a marked cell; so I mark appropriately.

5	1	3	2	3
3	**2**	2	**2**	1
3	2	1	4	5
4	3	5	1	**1**
4	4	3	5	2

Yet again there is a highlighted cell next to a marking. So I mark another cell.

Notice that on the top row's left most 3. If I did mark that cell the upper left cells of 5, 3, & 1 would be isolated from the rest of the un-marked cells. And so that cell cannot be marked. So I mark the 3 on the bottom row:

And I'll also need to mark the 3 that is right-most on the top row.

Upon doing that I completed the puzzle.

There are some more techniques to learn as well. Such as if you have the same three numbers in three consecutive cells you know two of them need to be marked and they are the end two.

Use the techniques you learned to solve larger and more complex puzzles!

The nHitori program will keep track of which puzzles you beat that are included in the program. When you beat a puzzle it will have a star next to the level name in the menu.

Questions/Comments
If you have any questions or comments; you can reach me at ajorians@gmail.com

Thank you and have a great day!