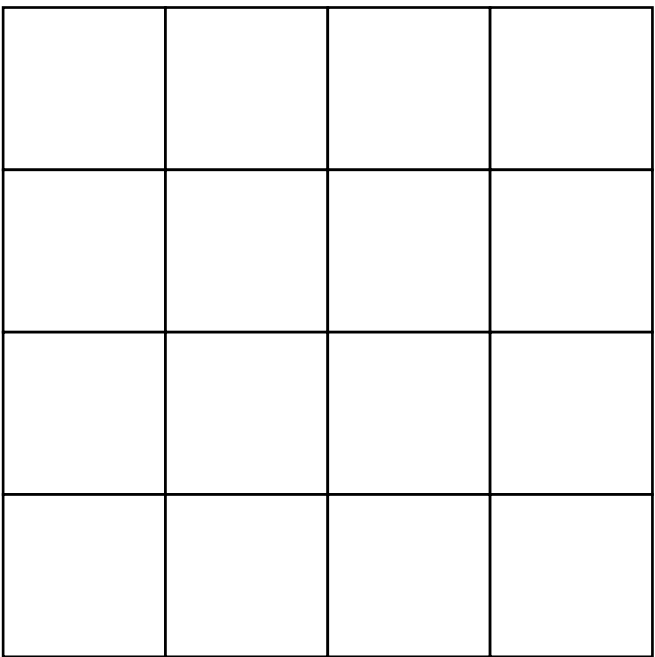
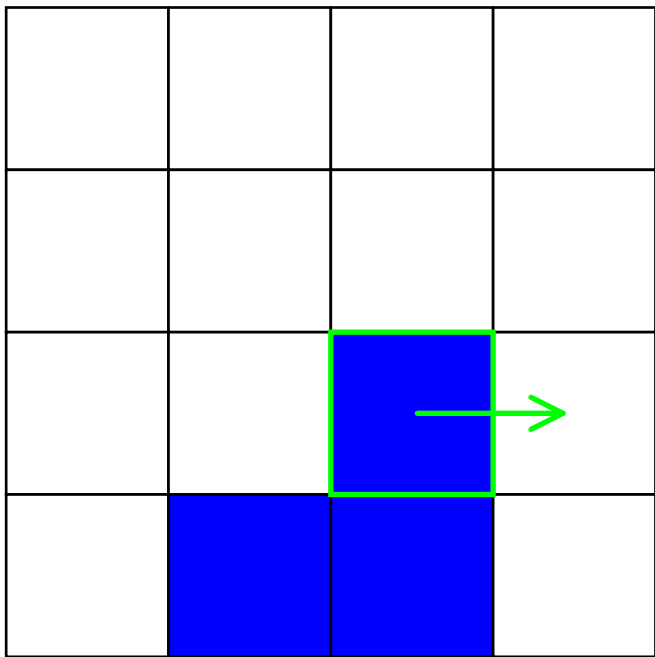


...:SOLUTION::...: Solvable in 1 moves (blocks positions: {(2, 2): <Color: blue>, (3, 1): <Color: blue>, (3, 2): <Color: blue>})

INITIAL STATE: (MOVE 1)

Perform: move\_right at position: (2, 2):

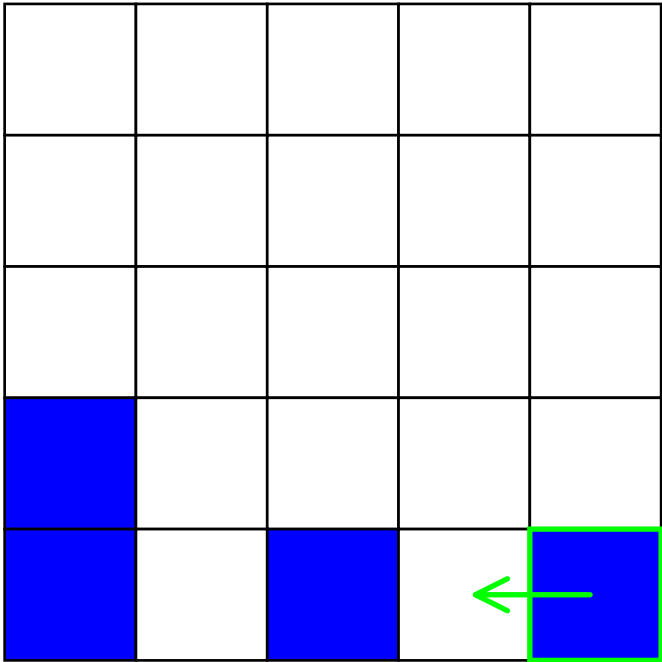
FINAL STATE



...:SOLUTION::...: Solvable in 2 moves (blocks positions: {(3, 0): <Color: blue>, (4, 0): <Color: blue>, (4, 2): <Color: blue>, (4, 4): <Color: blue>} )

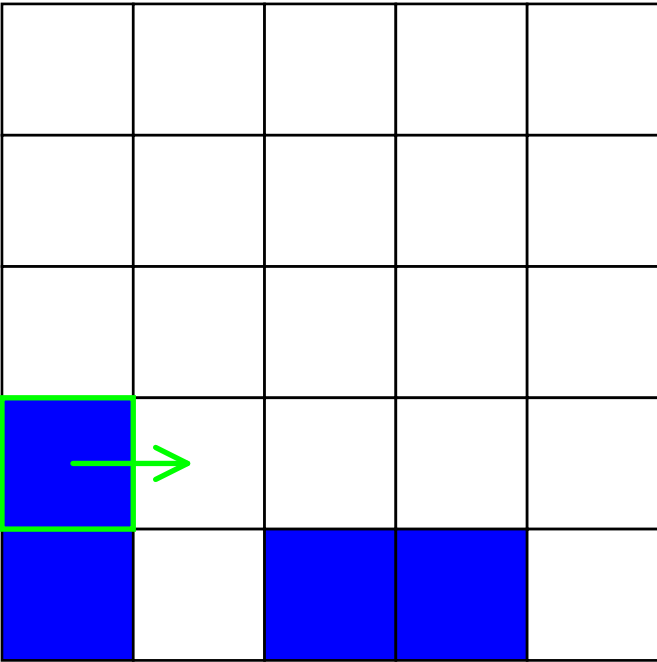
INITIAL STATE: (MOVE 1)

Perform: move\_left at position: (4, 4):

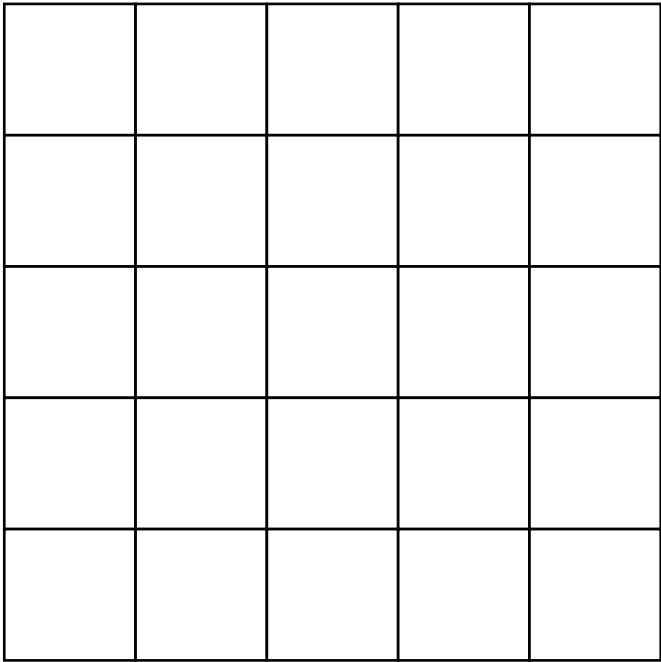


(MOVE 2)

Perform: move\_right at position: (3, 0):



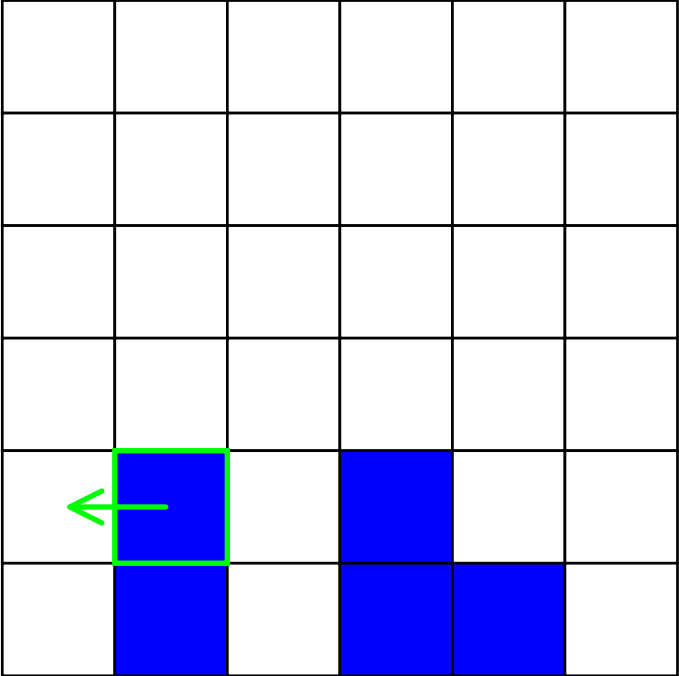
FINAL STATE



...:SOLUTION:... Solvable in 2 moves (blocks positions: {(4, 1): <Color: blue>, (4, 3): <Color: blue>, (5, 1): <Color: blue>, (5, 3): <Color: blue>, (5, 4): <Color: blue>})

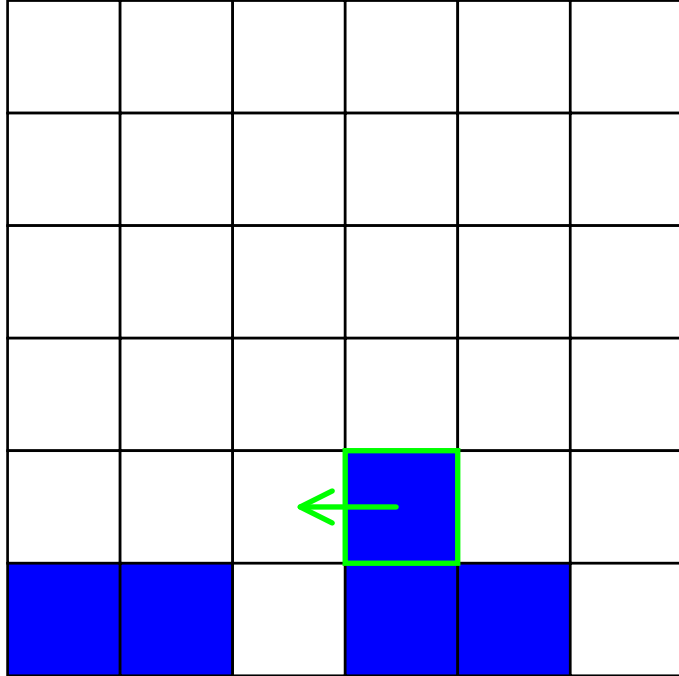
## INITIAL STATE: (MOVE 1)

Perform: move\_left at position: (4, 1):

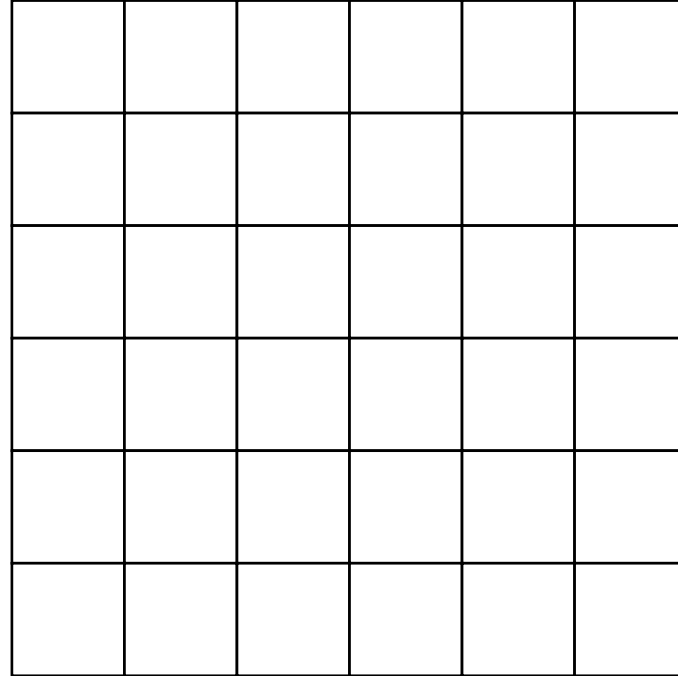


(MOVE 2)

Perform: move\_left at position: (4, 3):

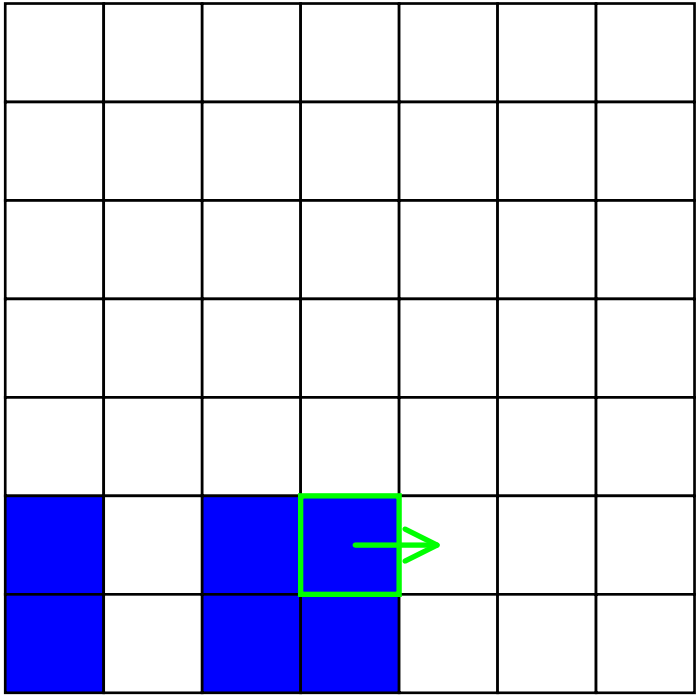


## FINAL STATE

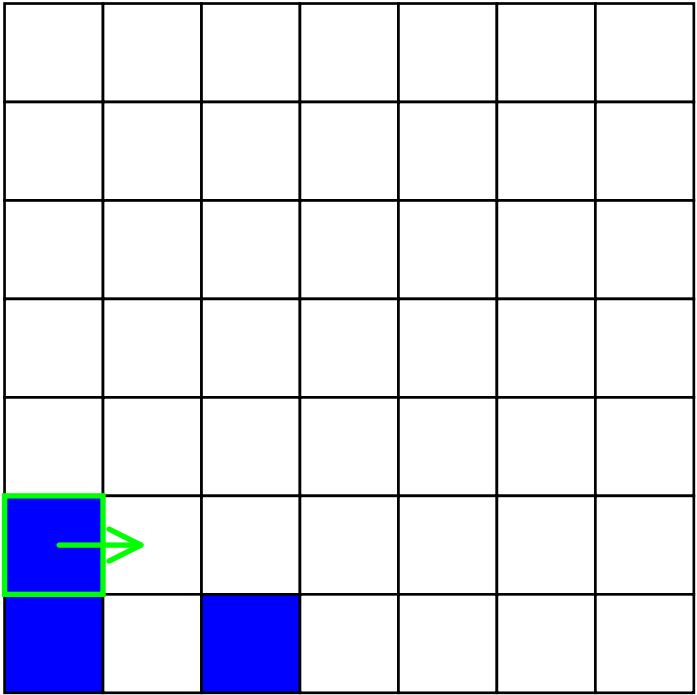


...:SOLUTION::...: Solvable in 2 moves (blocks positions: {(5, 0): <Color: blue>, (5, 2): <Color: blue>, (5, 3): <Color: blue>, (6, 0): <Color: blue>, (6, 2): <Color: blue>, (6, 3): <Color: blue>}

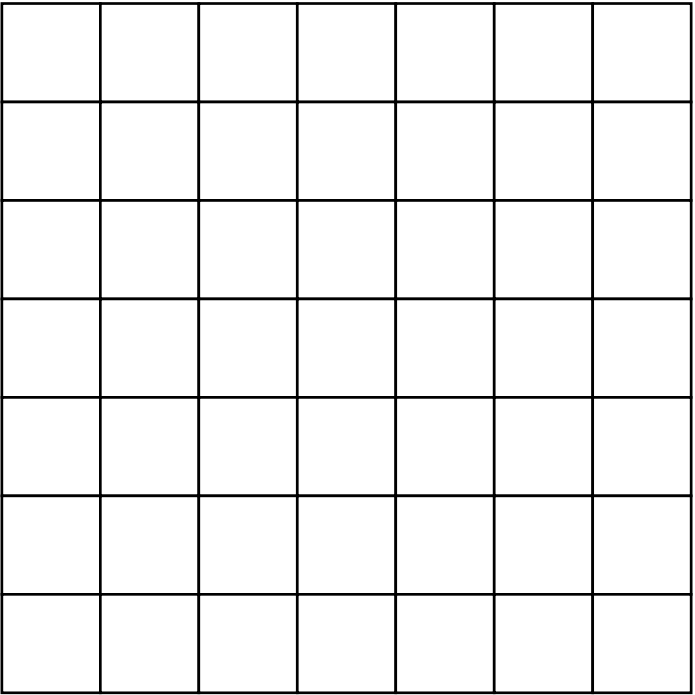
INITIAL STATE: (MOVE 1)  
Perform: move\_right at position: (5, 3):



(MOVE 2)  
Perform: move\_right at position: (5, 0):



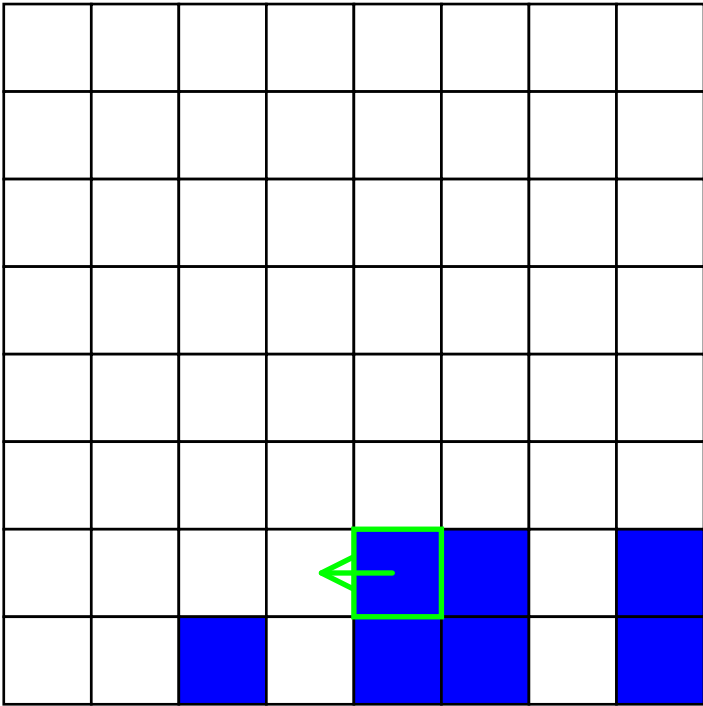
FINAL STATE



...:SOLUTION::...: Solvable in 2 moves (blocks positions: {(6, 4): <Color: blue>, (6, 5): <Color: blue>, (6, 7): <Color: blue>, (7, 2): <Color: blue>, (7, 4): <Color: blue>, (7, 5): <Color: blue>,

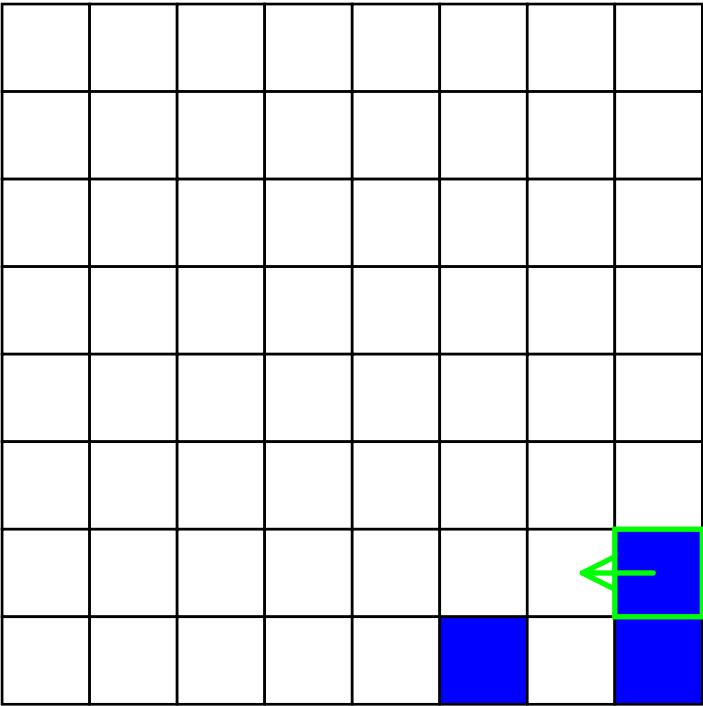
INITIAL STATE: (MOVE 1)

Perform: move\_left at position: (6, 4):

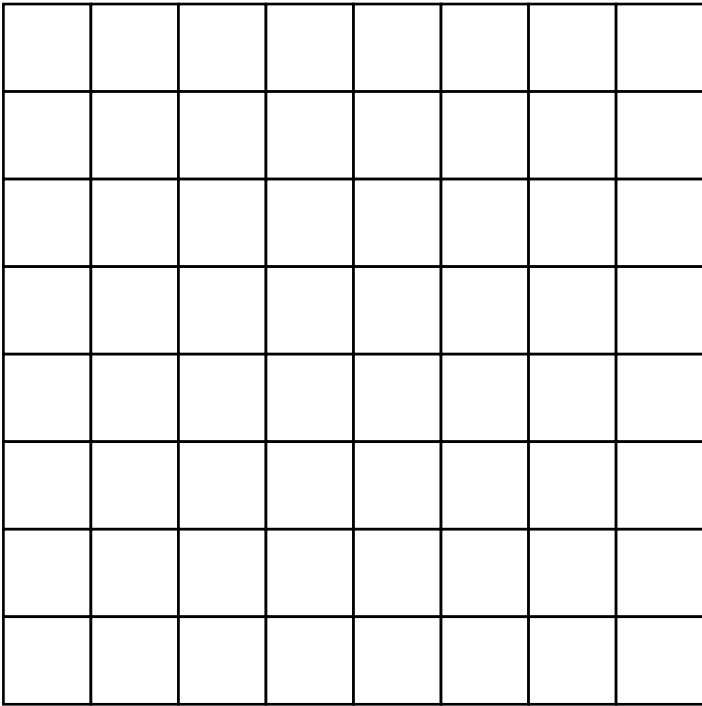


(MOVE 2)

Perform: move\_left at position: (6, 7):

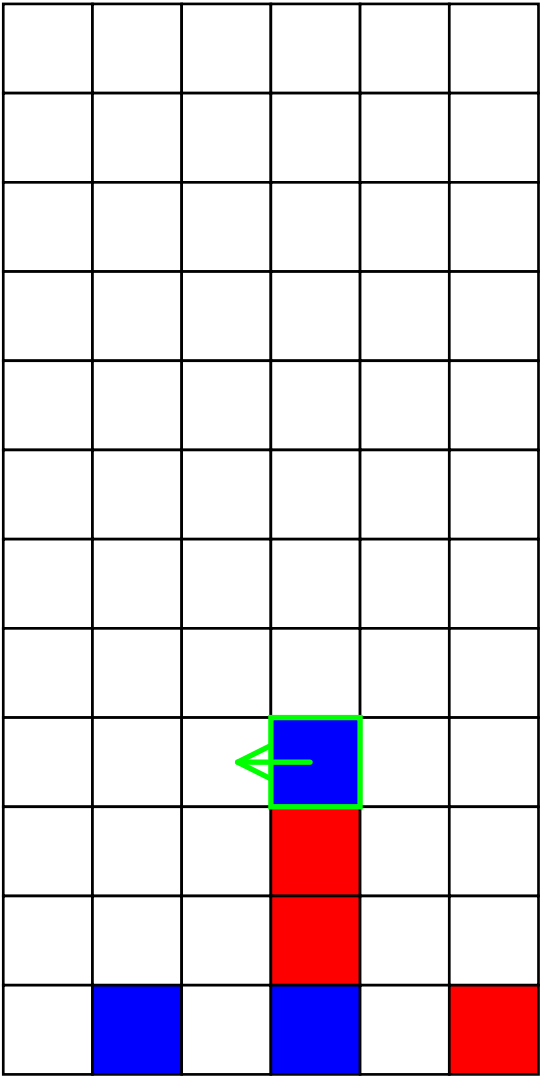


FINAL STATE

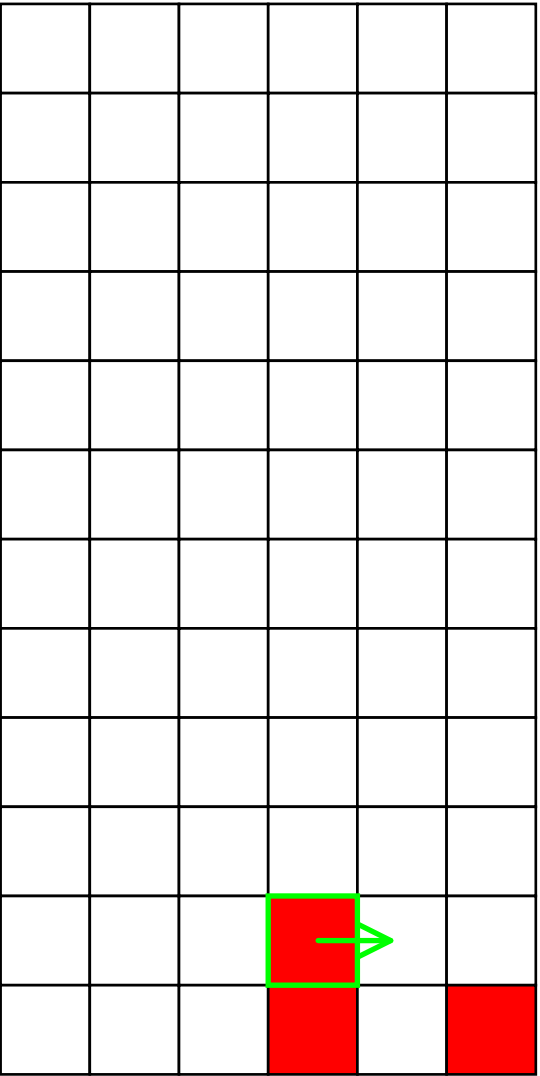


...:SOLUTION::...: Solvable in 2 moves (blocks positions: {(8, 3): <Color: blue>, (9, 3): <Color: red>, (10, 3): <Color: red>, (11, 1): <Color: blue>, (11, 3): <Color: blue>, (11, 5): <Color: blue>})

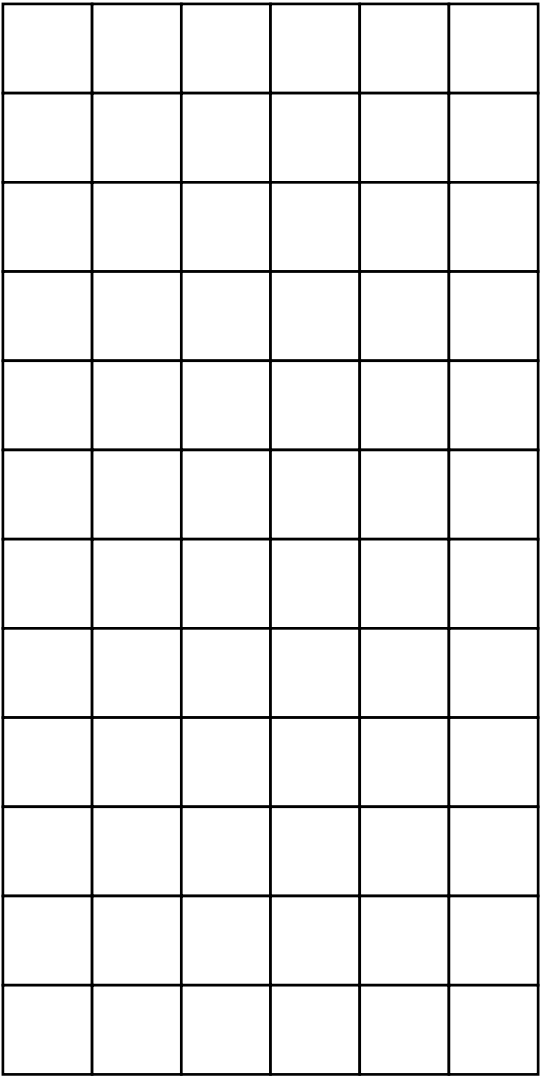
INITIAL STATE: (MOVE 1)  
Perform: move\_left at position: (8, 3):



(MOVE 2)  
Perform: move\_right at position: (10, 3):

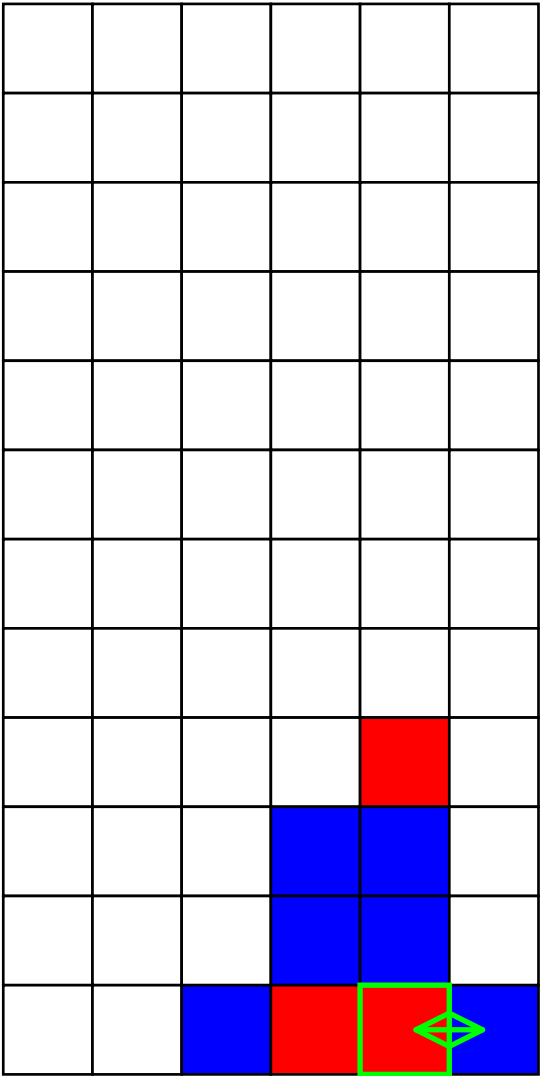


FINAL STATE

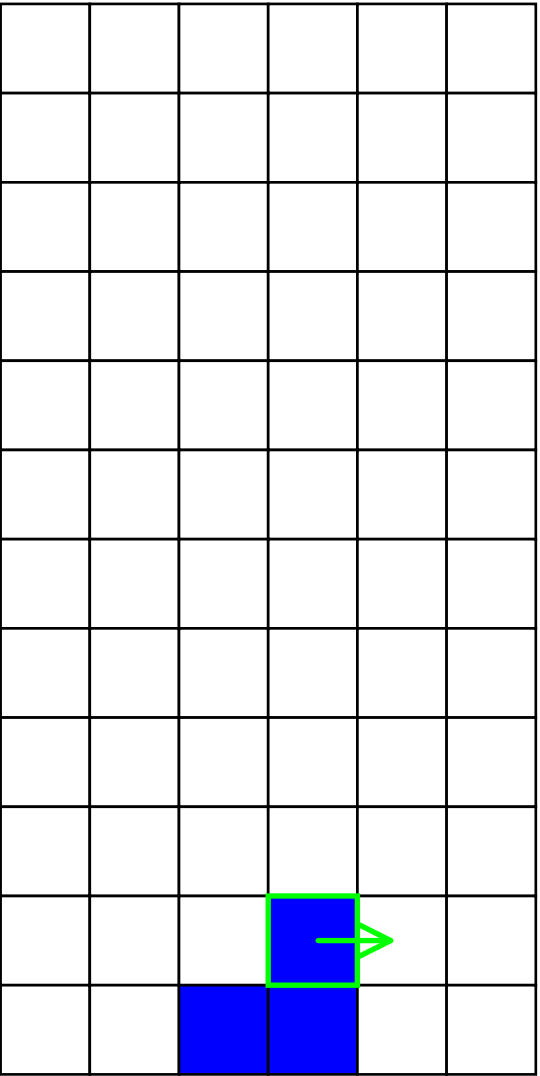


...:SOLUTION:...: Solvable in 2 moves (blocks positions: {(8, 4): <Color: red>, (9, 3): <Color: blue>, (9, 4): <Color: blue>, (10, 3): <Color: blue>, (10, 4): <Color: blue>, (11, 2): <Color: blue>})

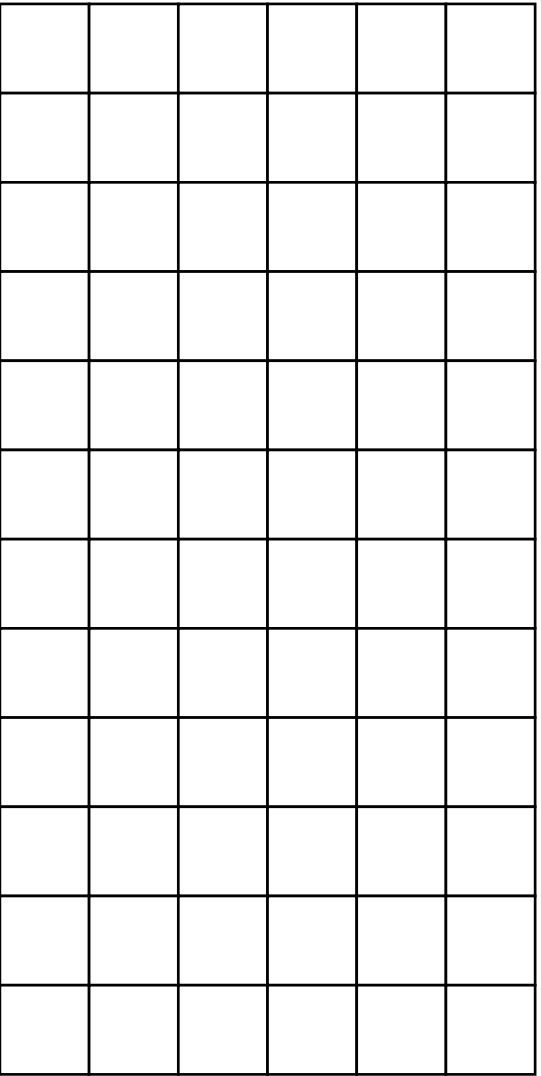
INITIAL STATE: (MOVE 1)  
Perform: exchange\_right at position: (11, 4):



(MOVE 2)  
Perform: move\_right at position: (10, 3):



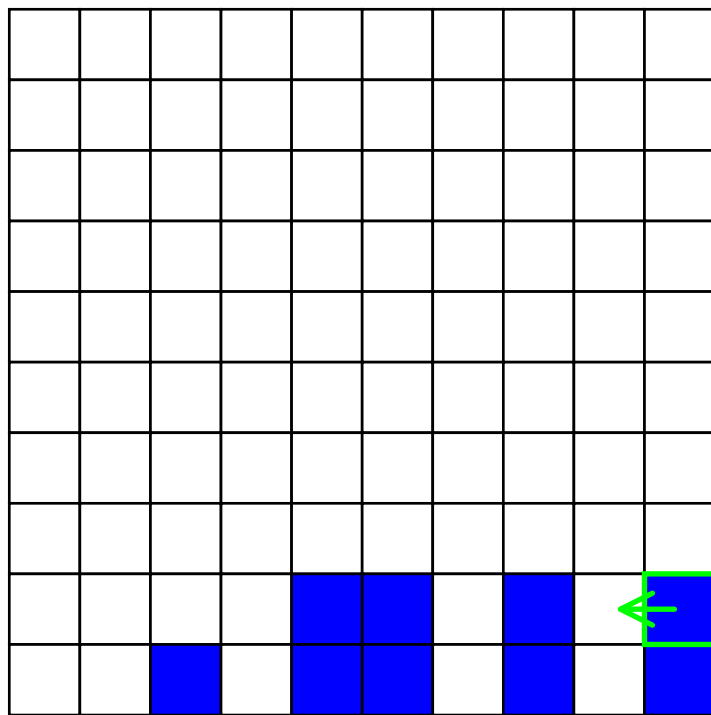
FINAL STATE



...:SOLUTION:...: Solvable in 3 moves (blocks positions: {(8, 4): <Color: blue>, (8, 5): <Color: blue>, (8, 7): <Color: blue>, (8, 9): <Color: blue>, (9, 2): <Color: blue>, (9, 4): <Color: blue>, (9, 5): <Color: blue>, (9, 7): <Color: blue>, (9, 9): <Color: blu

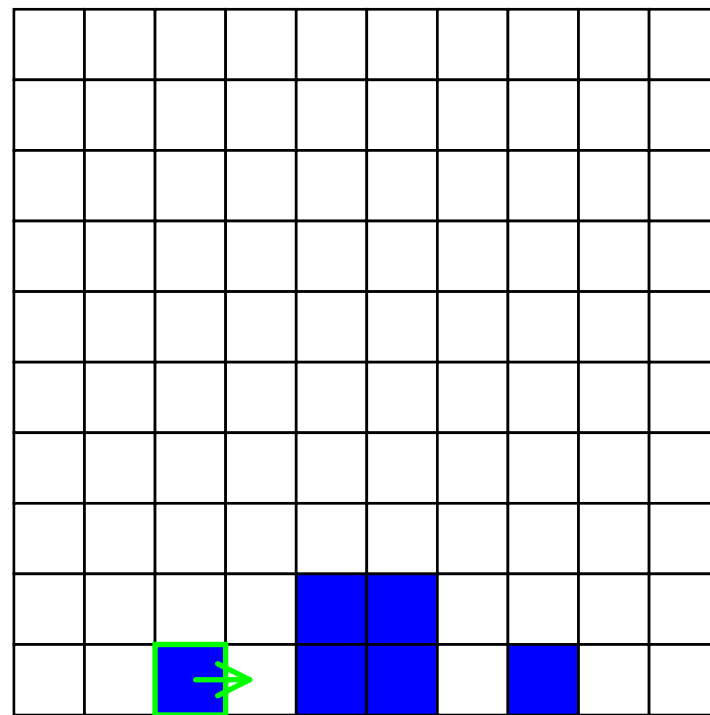
INITIAL STATE: (MOVE 1)

Perform: move\_left at position: (8, 9):



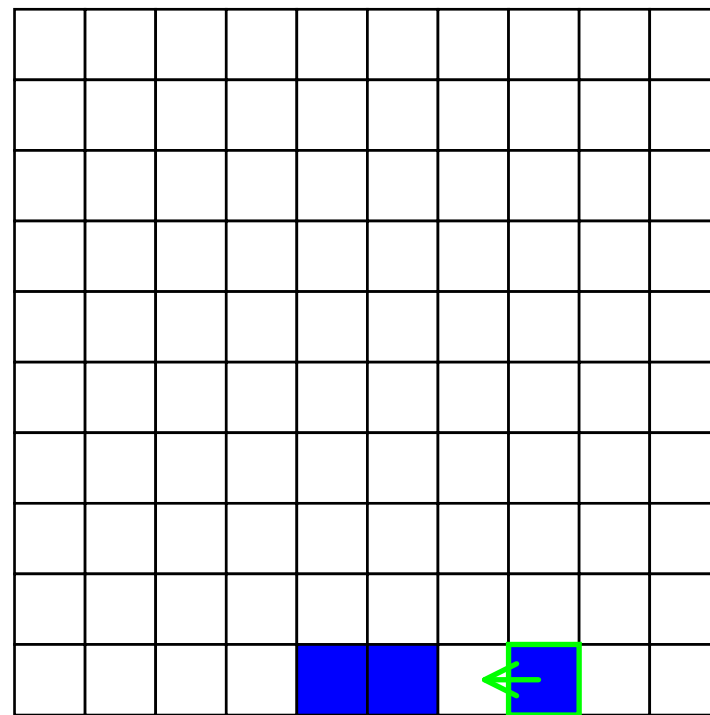
(MOVE 2)

Perform: move\_right at position: (9, 2):

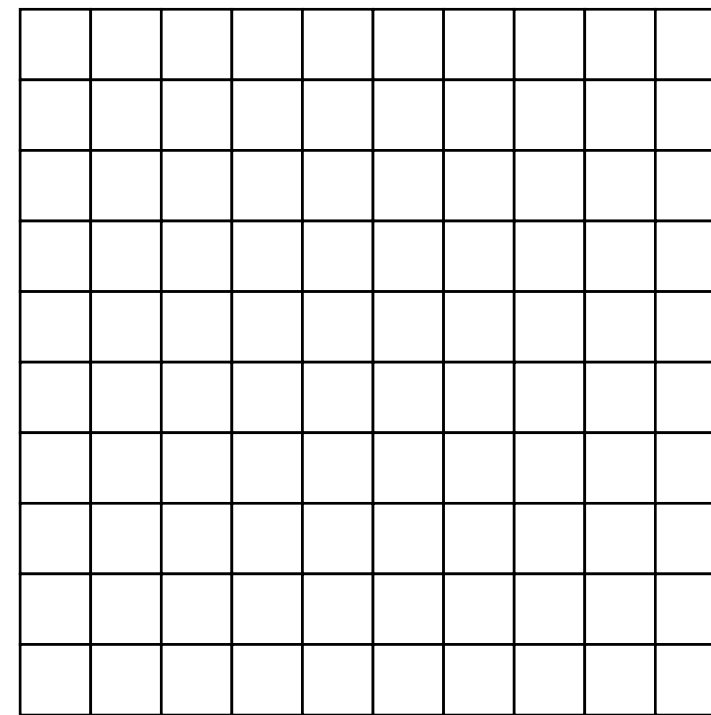


(MOVE 3)

Perform: move\_left at position: (9, 7):



FINAL STATE

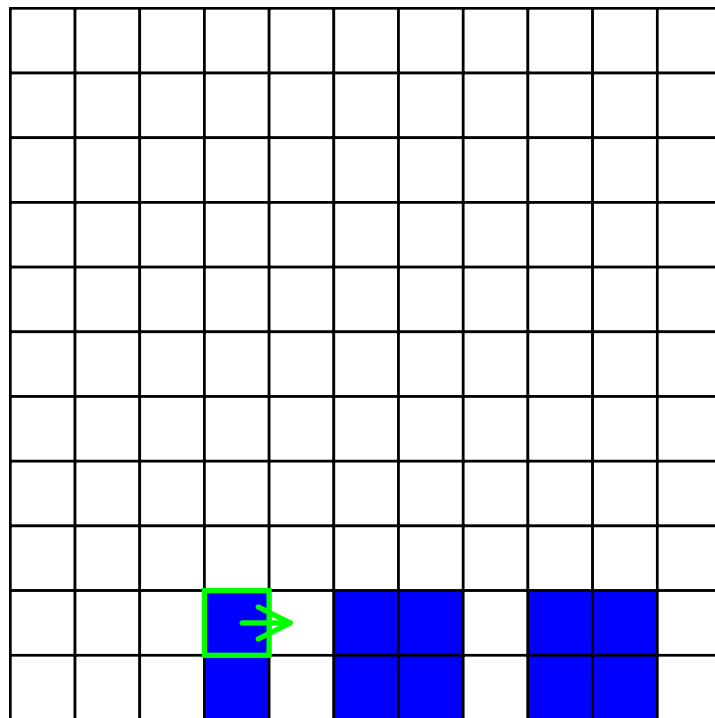




...:SOLUTION:...: Solvable in 3 moves (blocks positions: {(9, 3): <Color: blue>, (9, 5): <Color: blue>, (9, 6): <Color: blue>, (9, 8): <Color: blue>, (9, 9): <Color: blue>, (10, 3): <Color: blue>, (10, 5): <Color: blue>, (10, 6): <Color: blue>, (10, 8): <Color: blue>, (10, 9): <Color: blue>})

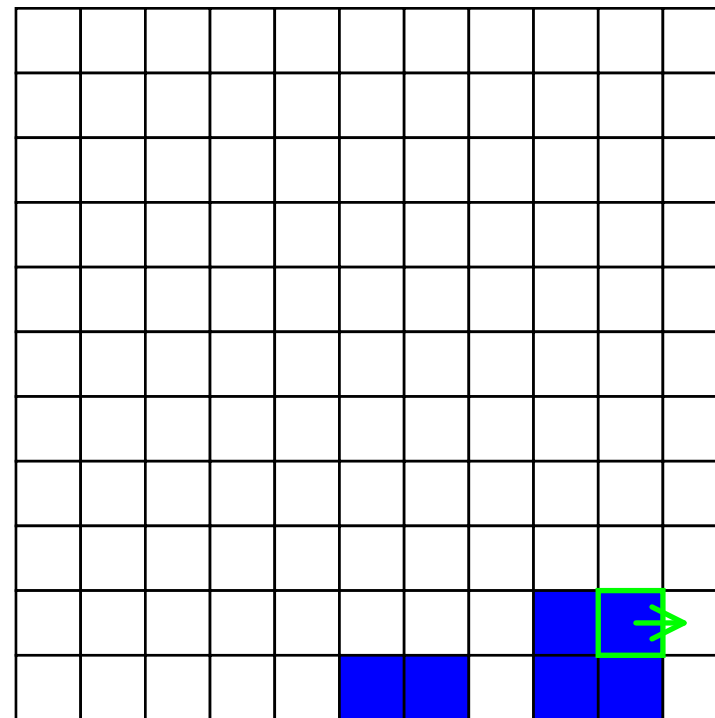
INITIAL STATE: (MOVE 1)

Perform: move\_right at position: (9, 3):



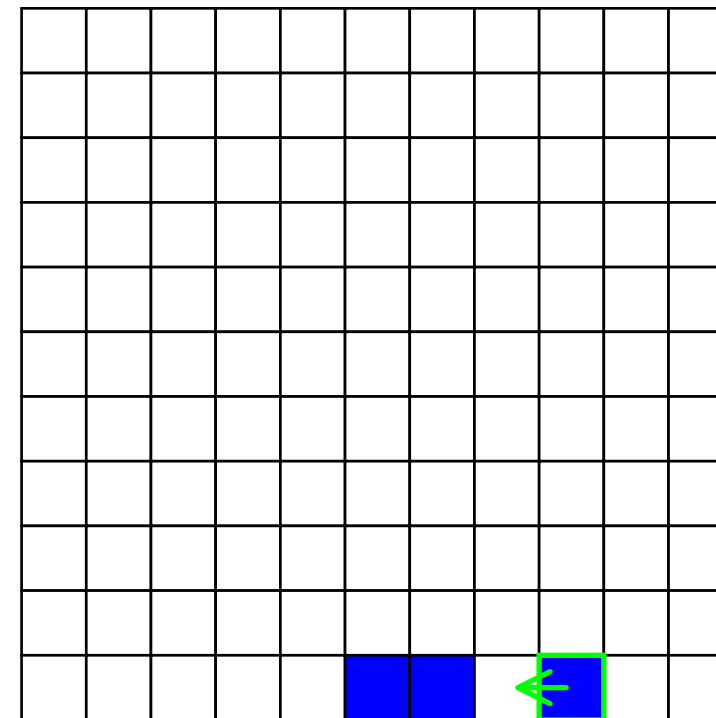
(MOVE 2)

Perform: move\_right at position: (9, 9):

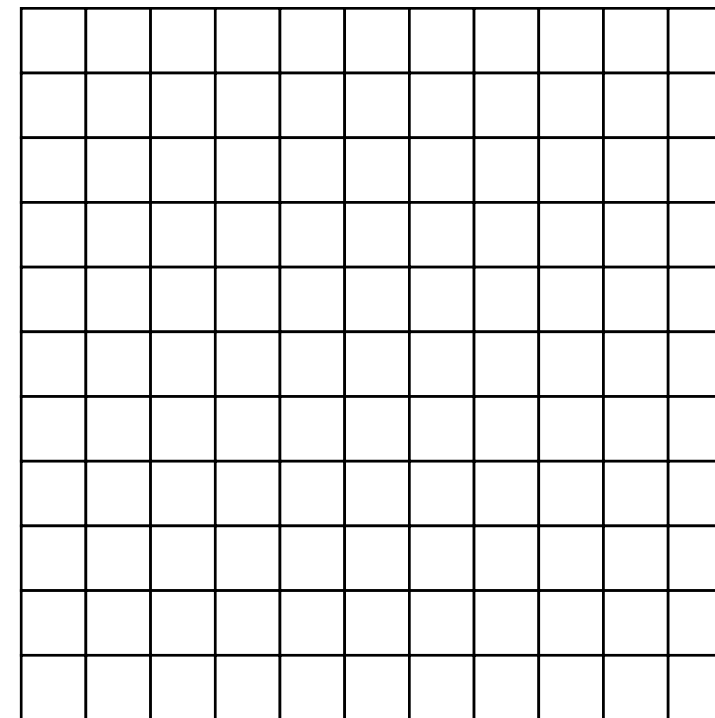


(MOVE 3)

Perform: move\_left at position: (10, 8):



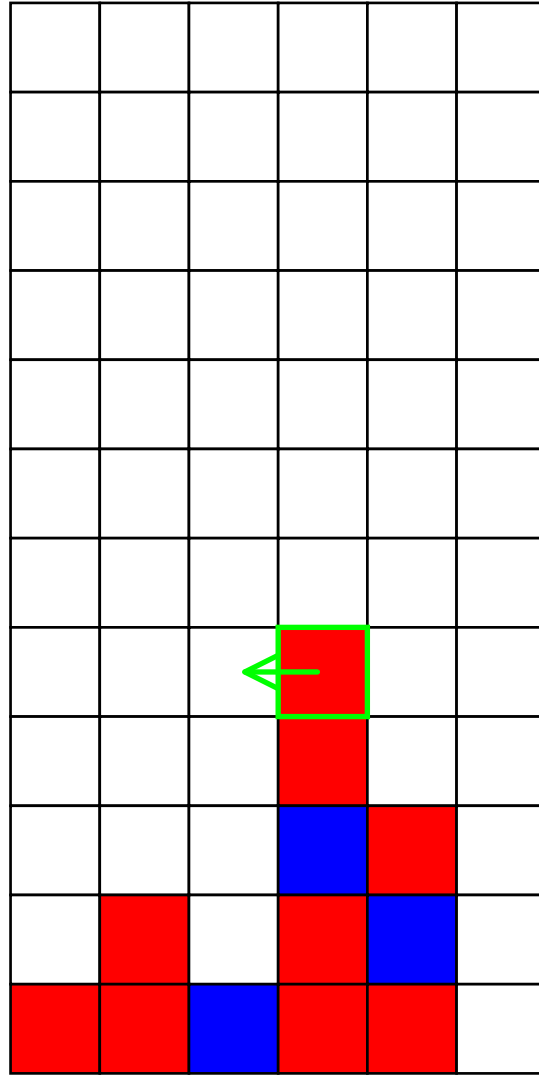
FINAL STATE



```
...:SOLUTION::...: Solvable in 3 moves (blocks positions: {(7, 3): <Color: red>, (8, 3): <Color: red>, (9, 3): <Color: blue>, (9, 4): <Color: red>, (10, 1): <Color: red>, (10, 3): <Color: red>, (10, 4): <Color: blue>, (11, 0): <Color: red>, (11, 1): <Color: red>, (11, 2): <Color: blue>, (11, 3): <Color: red>, (11, 4): <Color: red>})
```

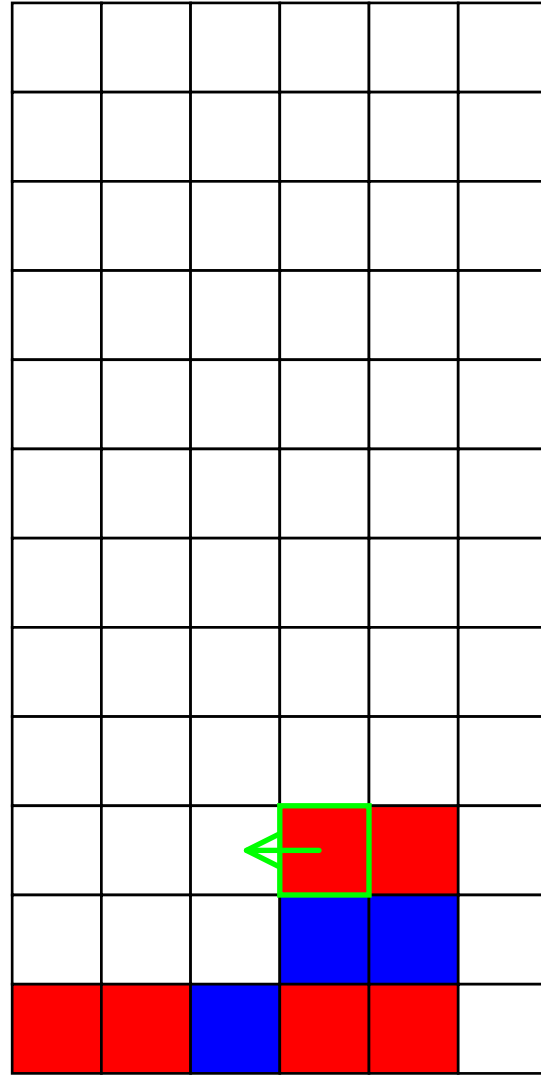
INITIAL STATE: (MOVE 1)

Perform: move\_left at position: (7, 3):



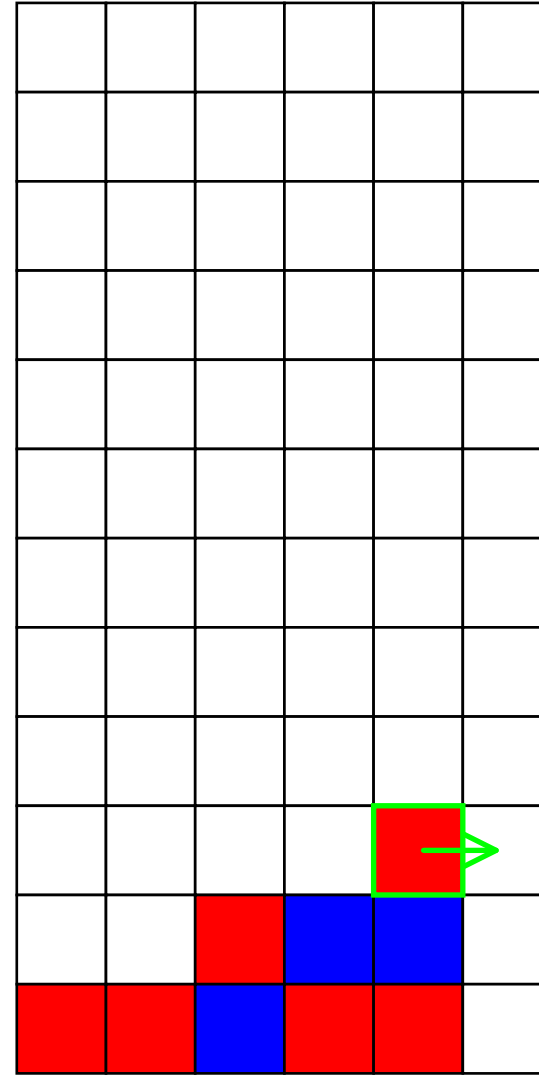
(MOVE 2)

Perform: move\_left at position: (9, 3):

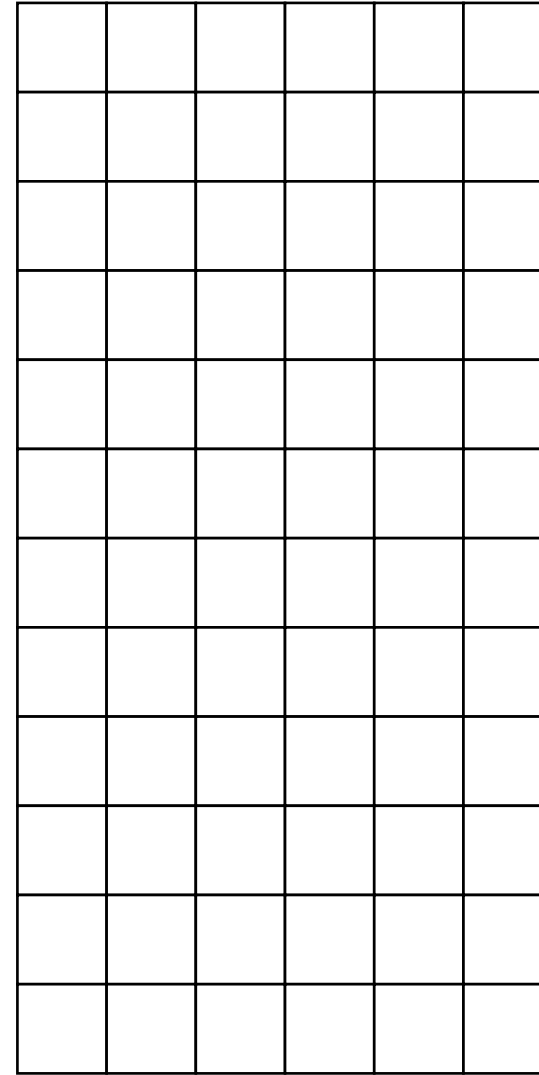


(MOVE 3)

Perform: move\_right at position: (9, 4):

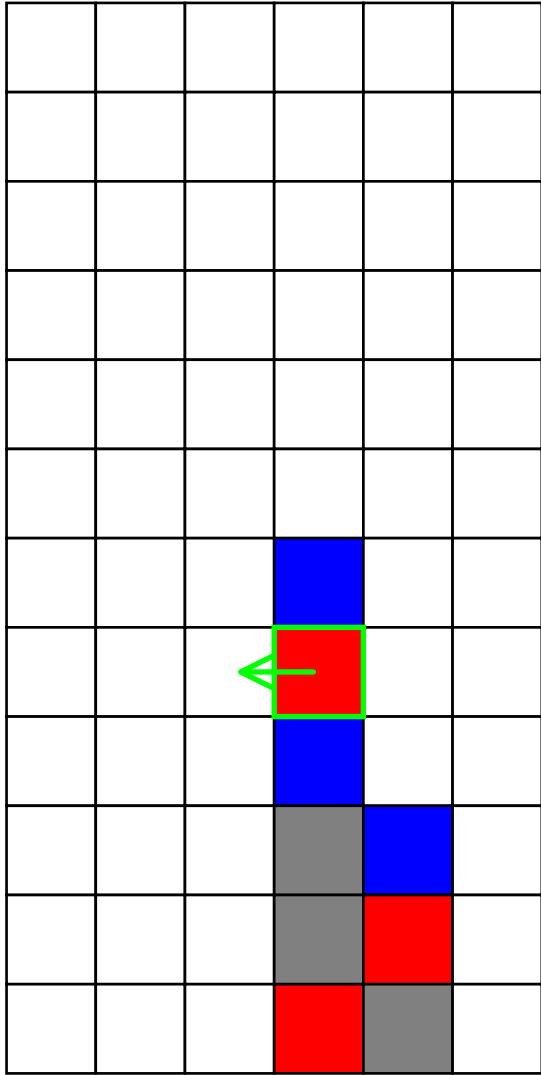


FINAL STATE

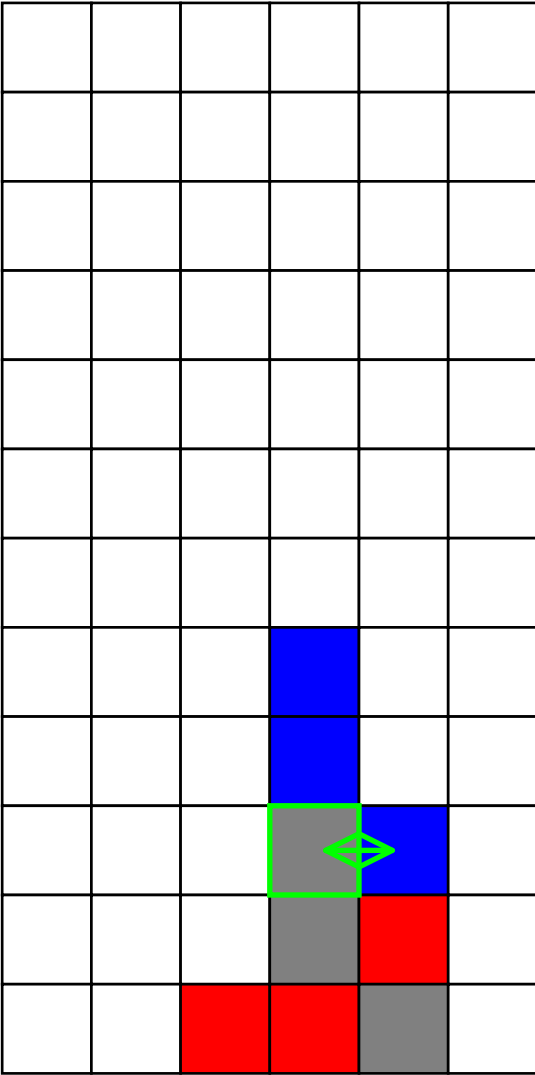


...:SOLUTION:...: Solvable in 3 moves (blocks positions: {(6, 3): <Color: blue>, (7, 3): <Color: red>, (8, 3): <Color: blue>, (9, 3): <Color: gray>, (9, 4): <Color: blue>, (10, 3): <Color: gray>, (10, 4): <Color: red>, (11, 3): <Color: red>, (11, 4): <Co

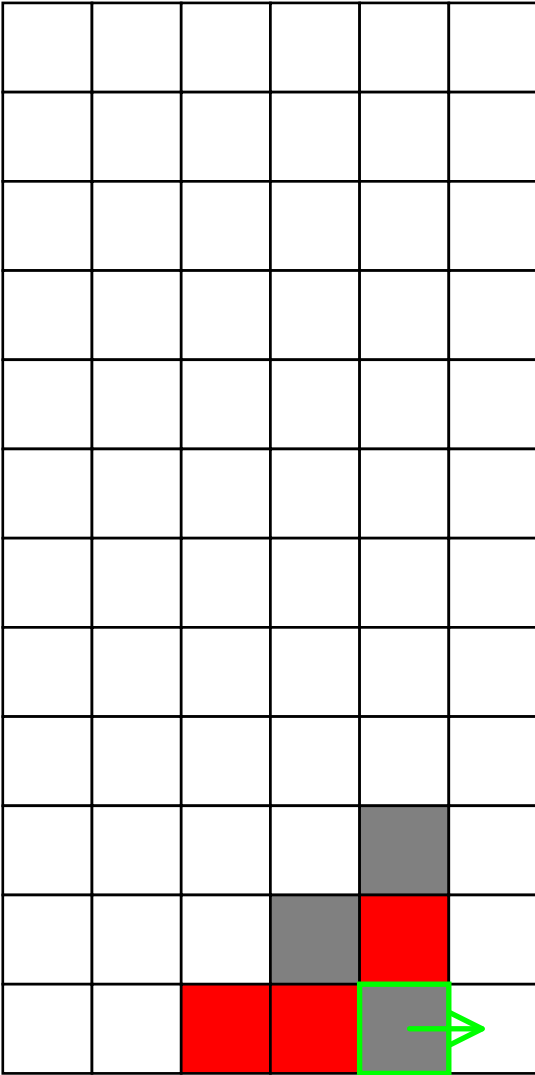
INITIAL STATE: (MOVE 1)  
Perform: move\_left at position: (7, 3):



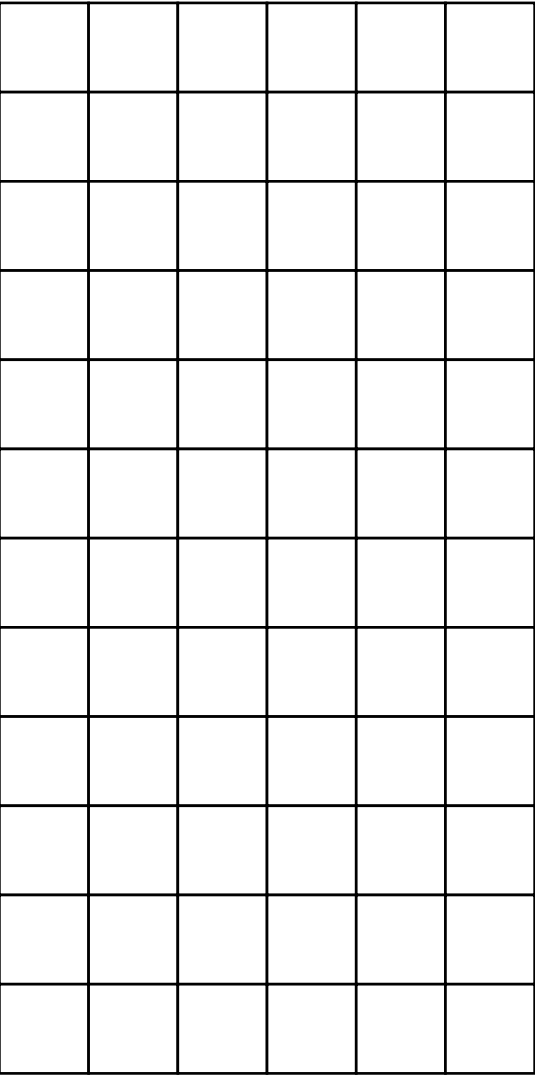
(MOVE 2)  
Perform: exchange\_right at position: (9, 3):



(MOVE 3)  
Perform: move\_right at position: (11, 4):



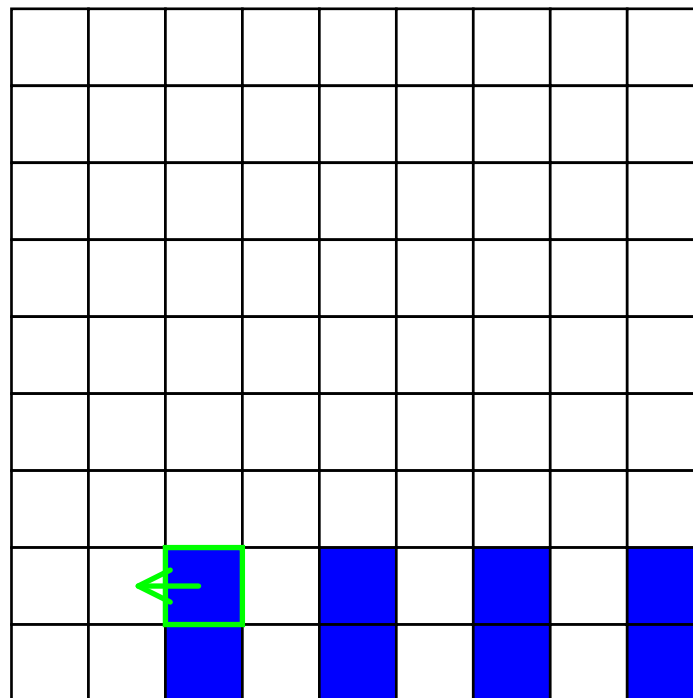
FINAL STATE



...:SOLUTION:... Solvable in 4 moves (blocks positions: {(7, 2): <Color: blue>, (7, 4): <Color: blue>, (7, 6): <Color: blue>, (7, 8): <Color: blue>, (8, 2): <Color: blue>, (8, 4): <Color: blue>, (8, 6): <Color: blue>, (8, 8): <Color: blue>})

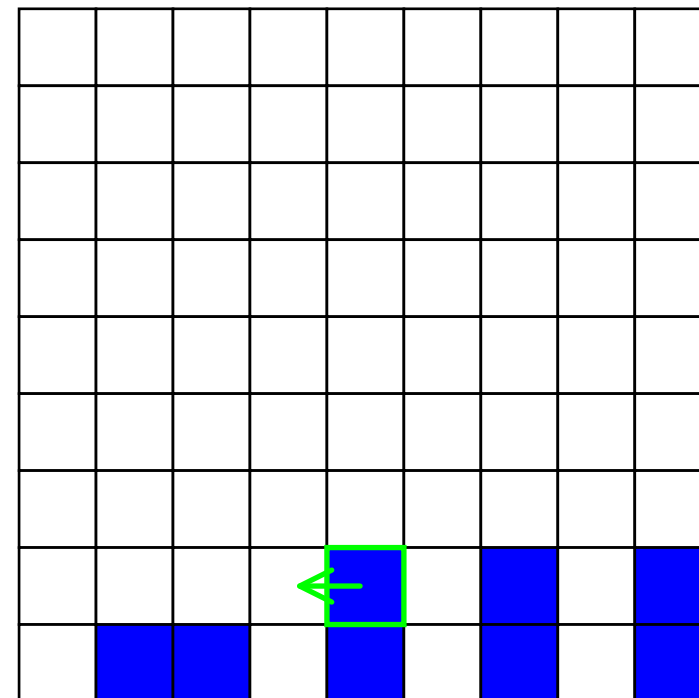
INITIAL STATE: (MOVE 1)

Perform: move\_left at position: (7, 2):



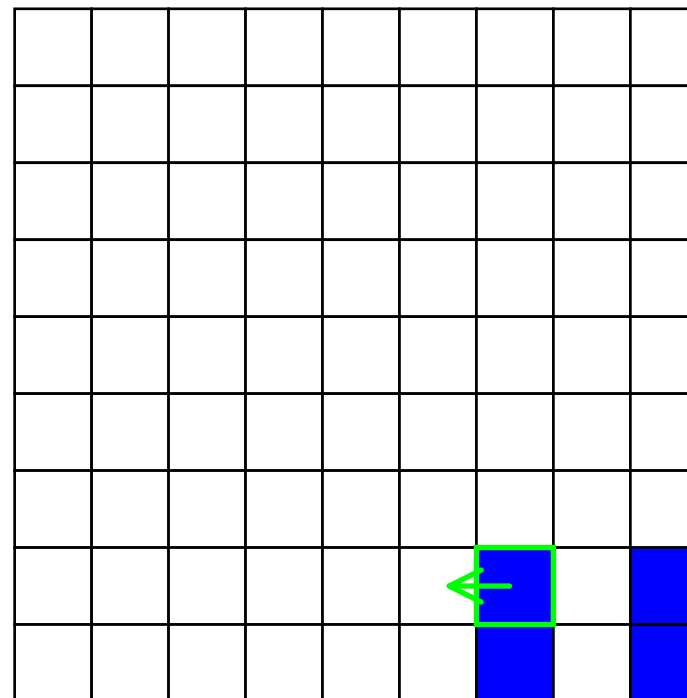
(MOVE 2)

Perform: move\_left at position: (7, 4):



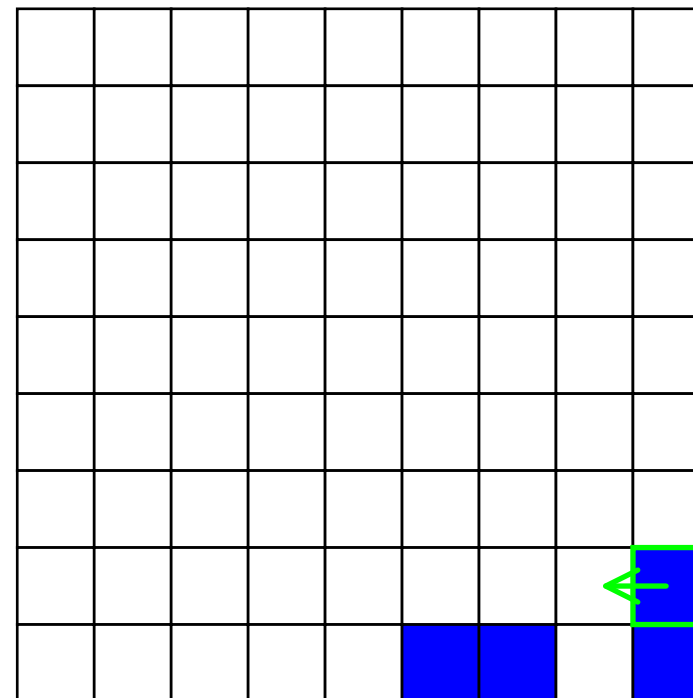
(MOVE 3)

Perform: move\_left at position: (7, 6):

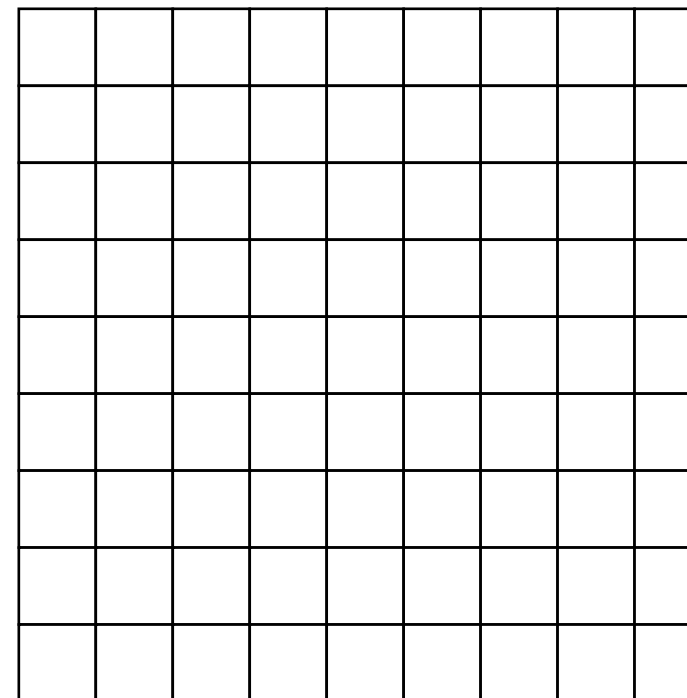


(MOVE 4)

Perform: move\_left at position: (7, 8):



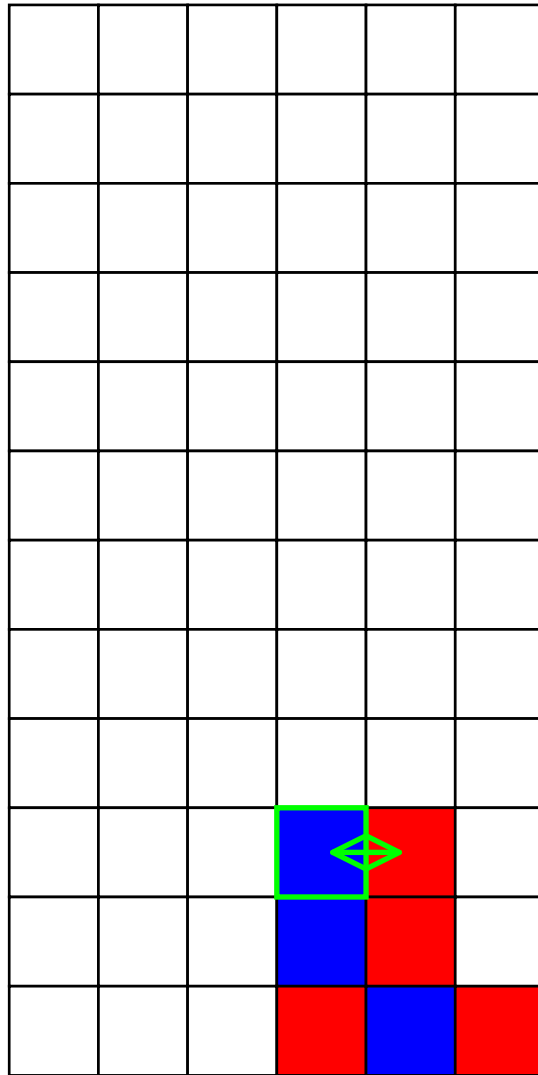
FINAL STATE



...:SOLUTION:...: Solvable in 4 moves (blocks positions: {(9, 3): <Color: blue>, (9, 4): <Color: red>, (10, 3): <Color: blue>, (10, 4): <Color: red>, (11, 3): <Color: red>, (11, 4): <Color: blue>, (11, 5): <Color: red>})

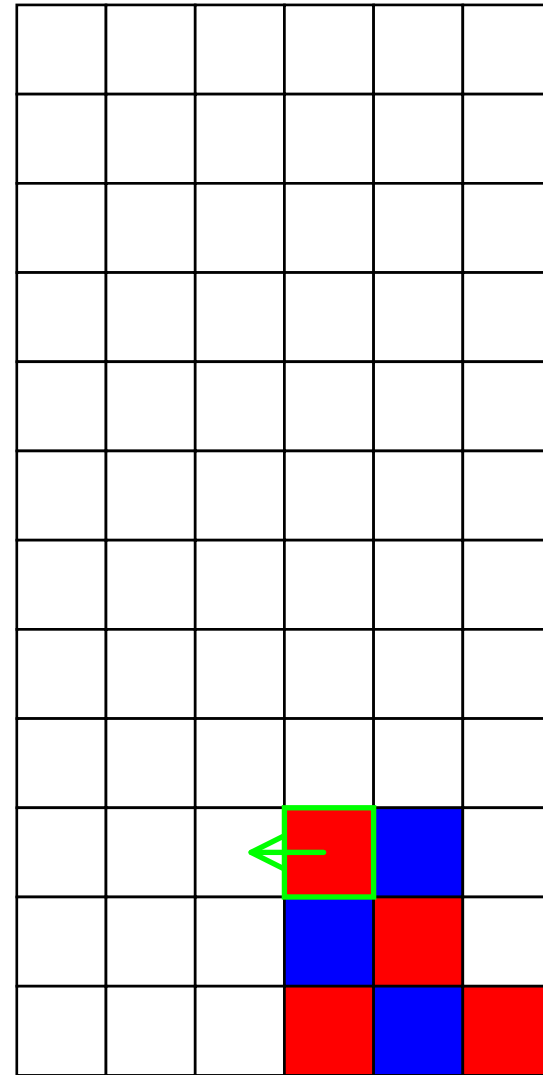
INITIAL STATE: (MOVE 1)

Perform: exchange\_right at position: (9, 3):



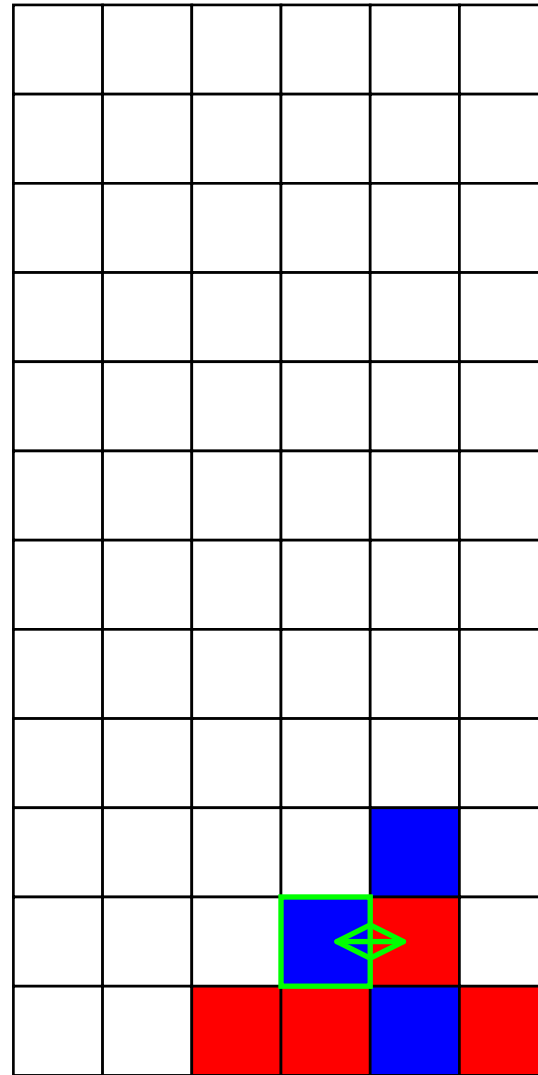
(MOVE 2)

Perform: move\_left at position: (9, 3):



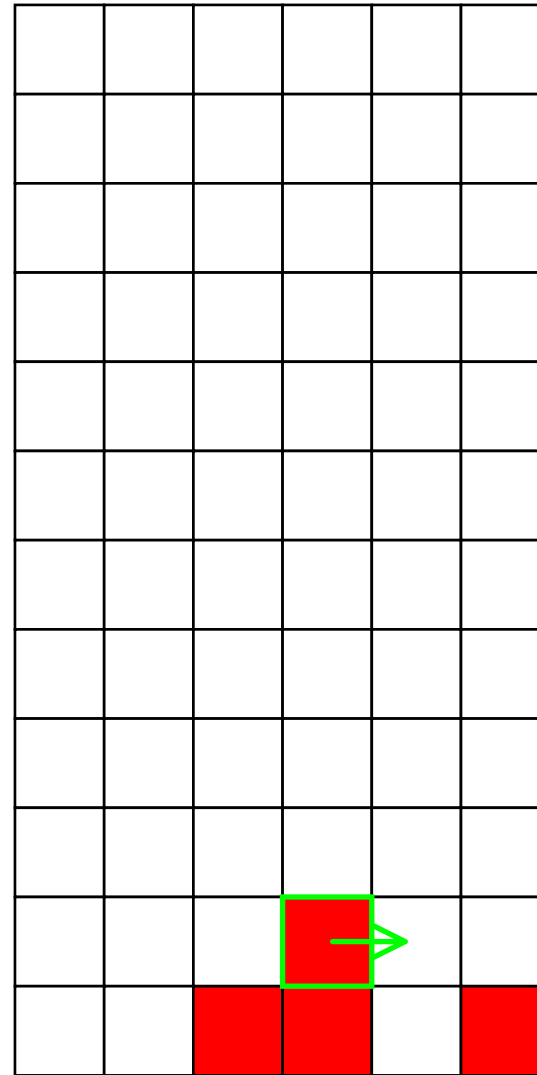
(MOVE 3)

Perform: exchange\_right at position: (10, 3):

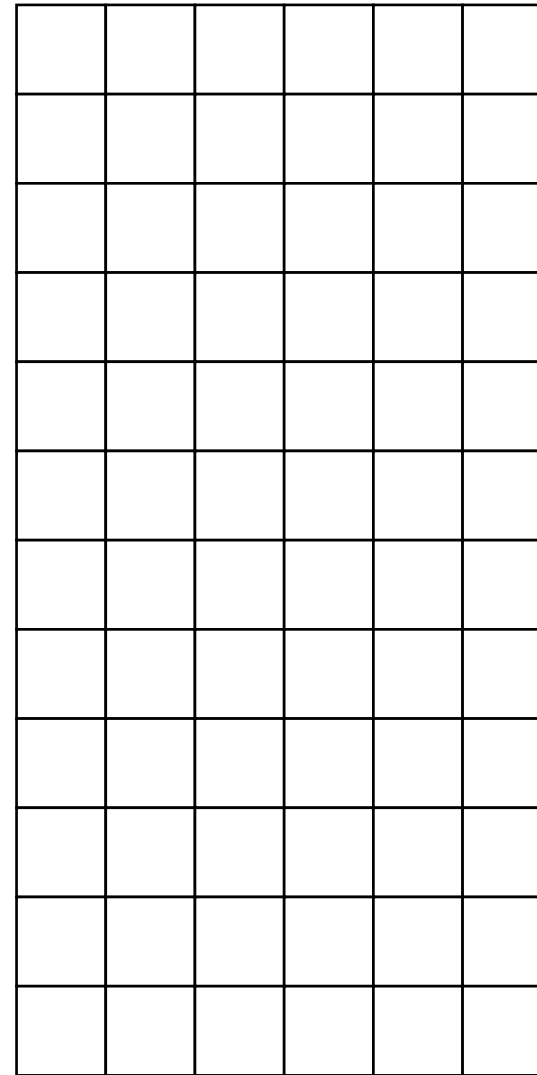


(MOVE 4)

Perform: move\_right at position: (10, 3):



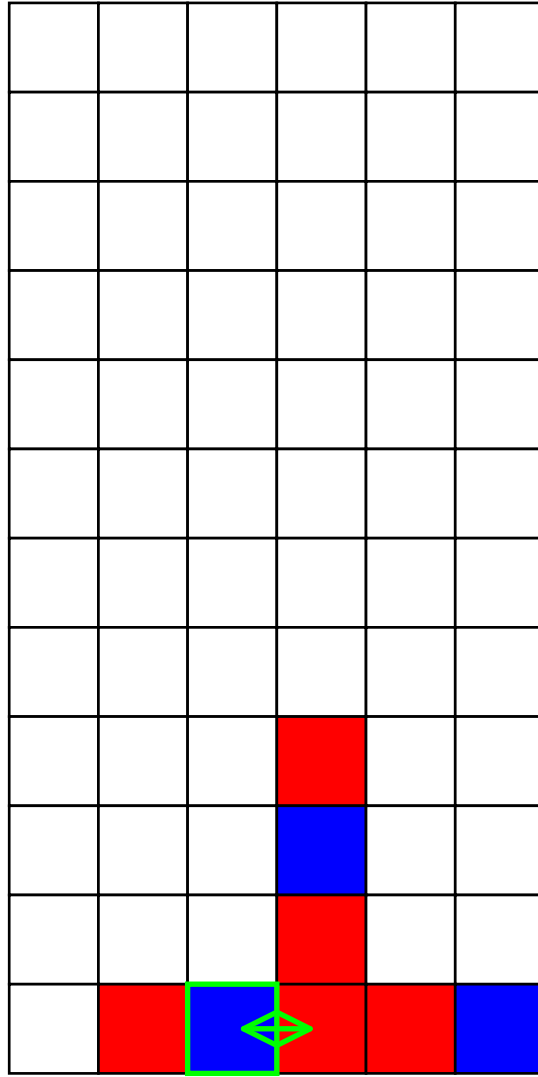
FINAL STATE



...:SOLUTION::...: Solvable in 4 moves (blocks positions: {(8, 3): <Color: red>, (9, 3): <Color: blue>, (10, 3): <Color: red>, (11, 1): <Color: red>, (11, 2): <Color: blue>, (11, 3): <Color: red>, (11, 4): <Color: red>, (11, 5): <Color: blue>})

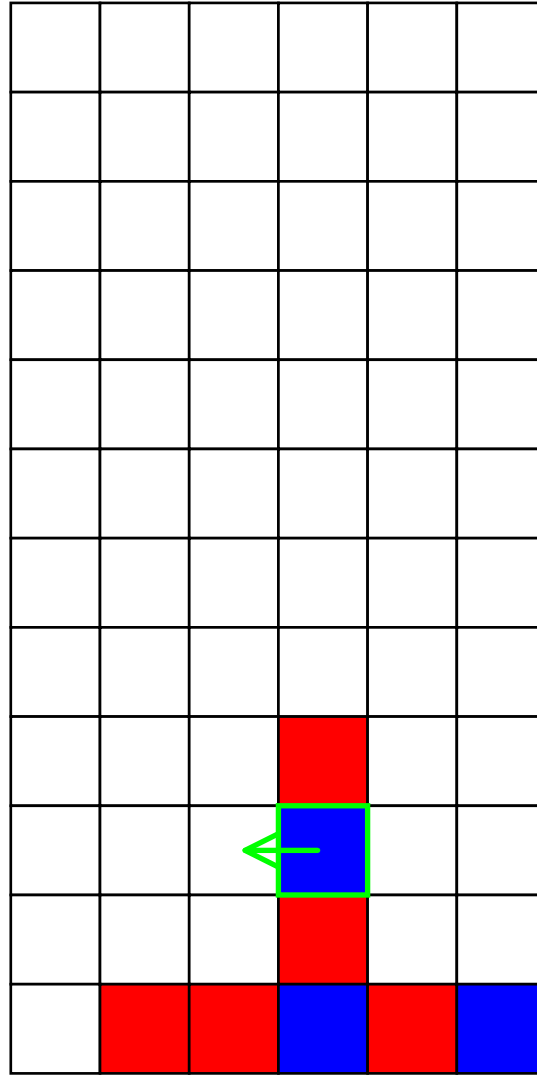
INITIAL STATE: (MOVE 1)

Perform: exchange\_right at position: (11, 2):



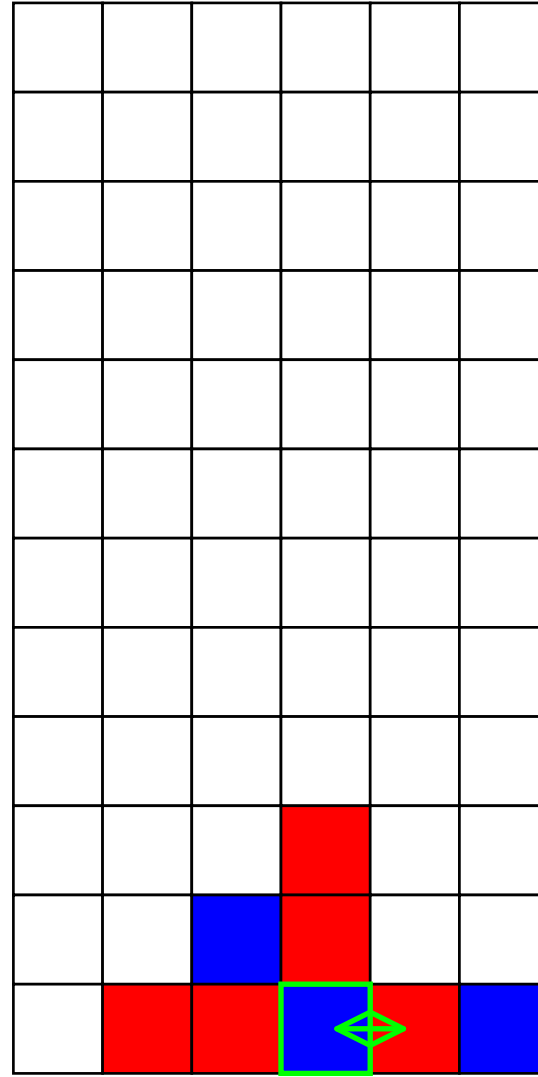
(MOVE 2)

Perform: move\_left at position: (9, 3):



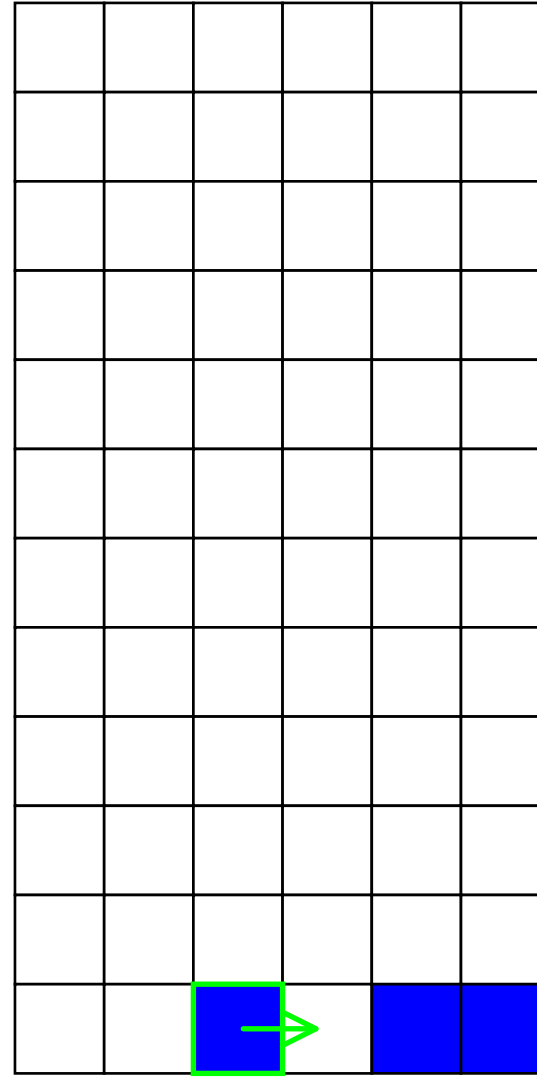
(MOVE 3)

Perform: exchange\_right at position: (11, 3):

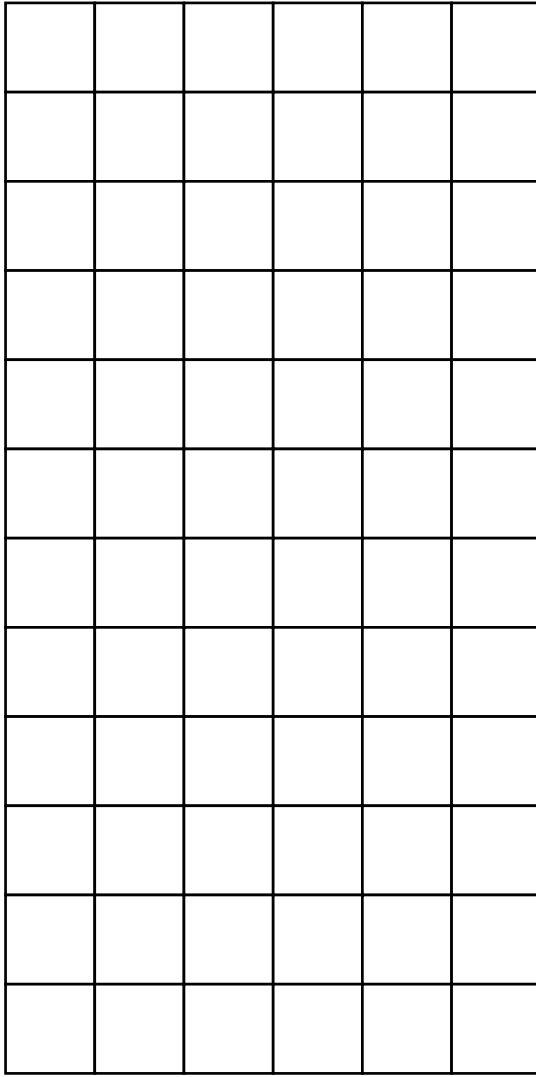


(MOVE 4)

Perform: move\_right at position: (11, 2):



FINAL STATE

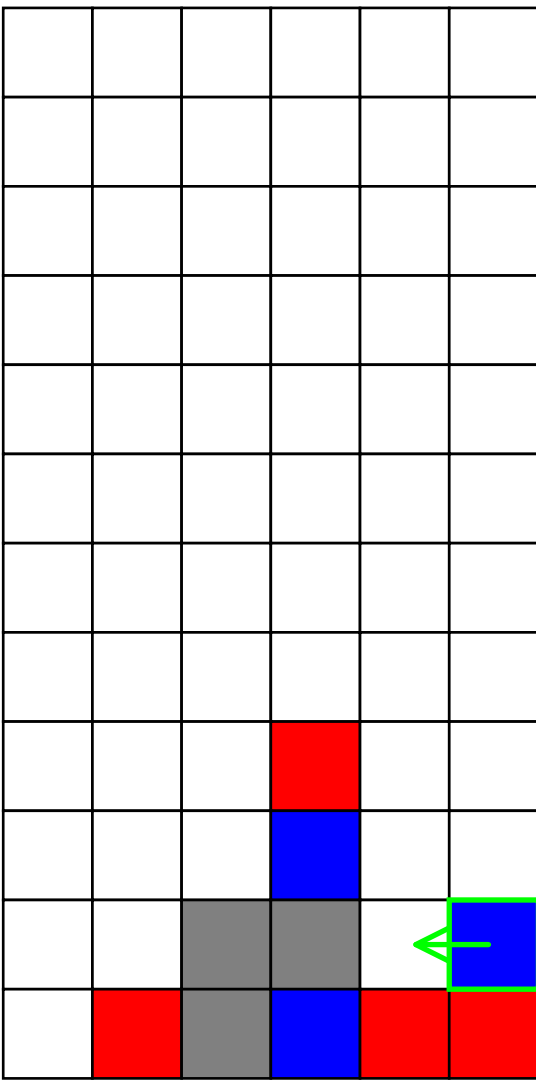




...:SOLUTION:...: Solvable in 4 moves (blocks positions: {(8, 3): <Color: red>, (9, 3): <Color: blue>, (10, 2): <Color: gray>, (10, 3): <Color: gray>, (10, 5): <Color: blue>, (11, 1): <Color: red>, (11, 2): <Color: gray>, (11, 3): <Color: blue>, (11, 4): <Color: red>, (11, 5): <Color: red>})

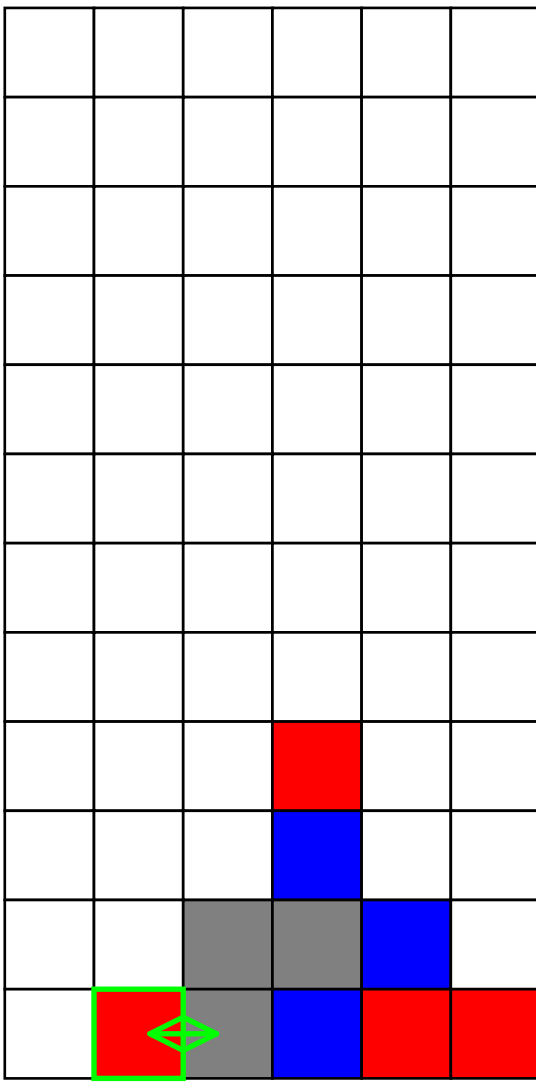
INITIAL STATE: (MOVE 1)

Perform: move\_left at position: (10, 5):



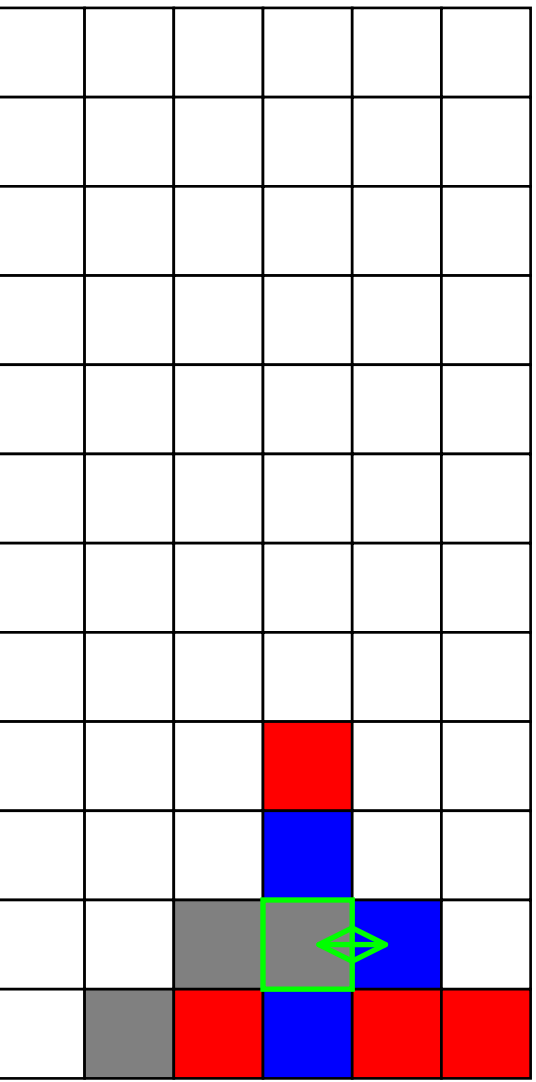
(MOVE 2)

Perform: exchange\_right at position: (11, 1):



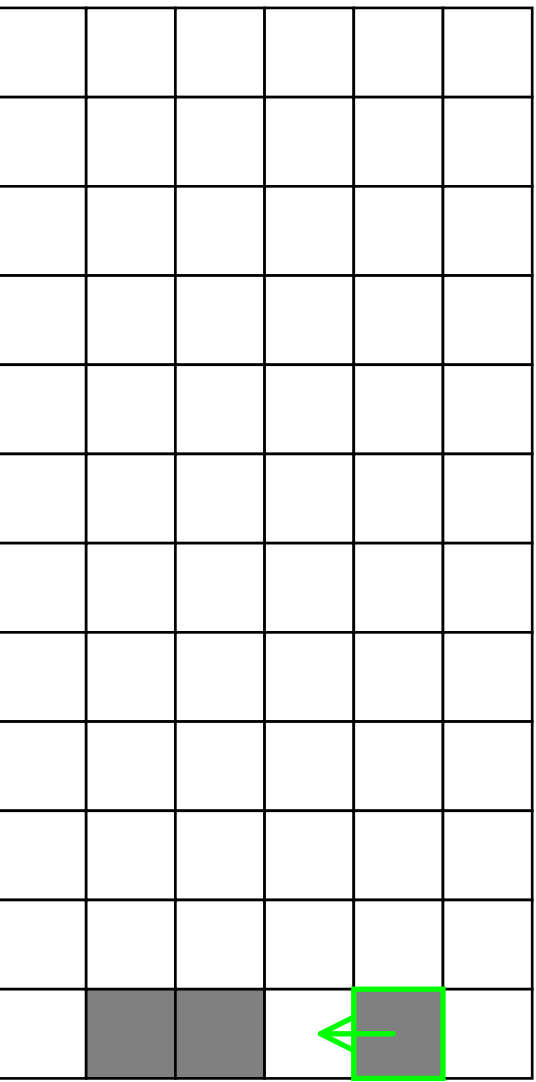
(MOVE 3)

Perform: exchange\_right at position: (10, 3):

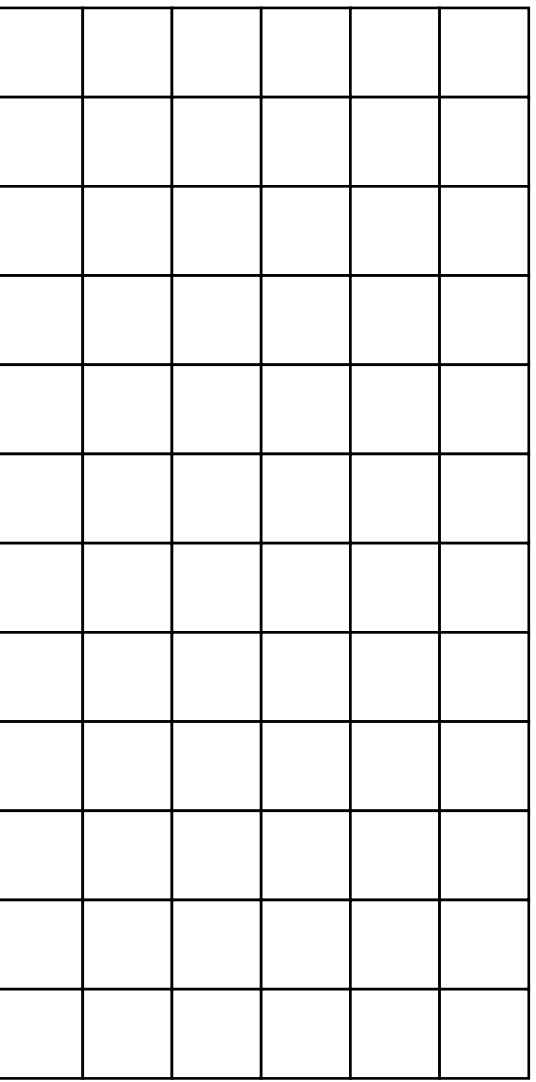


(MOVE 4)

Perform: move\_left at position: (11, 4):



FINAL STATE

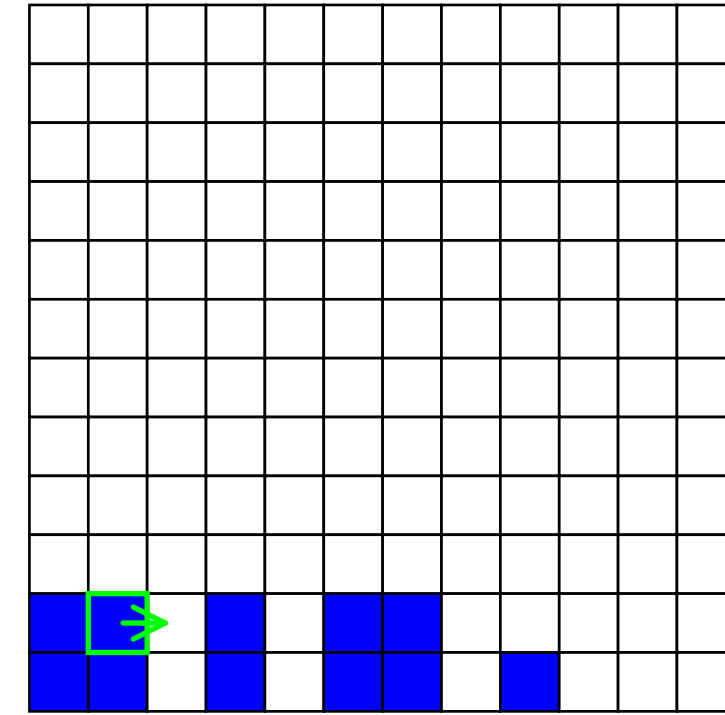




...:SOLUTION:...: Solvable in 5 moves (blocks positions: {(10, 0): <Color: blue>, (10, 1): <Color: blue>, (10, 3): <Color: blue>, (10, 5): <Color: blue>, (10, 6): <Color: blue>, (11, 0): <Color: blue>, (11, 1): <Color: blue>, (11, 3): <Color: blue>, (11, 5): <Color: blue>, (11, 6): <Color: blue>, (11, 8): <Color: blue>})

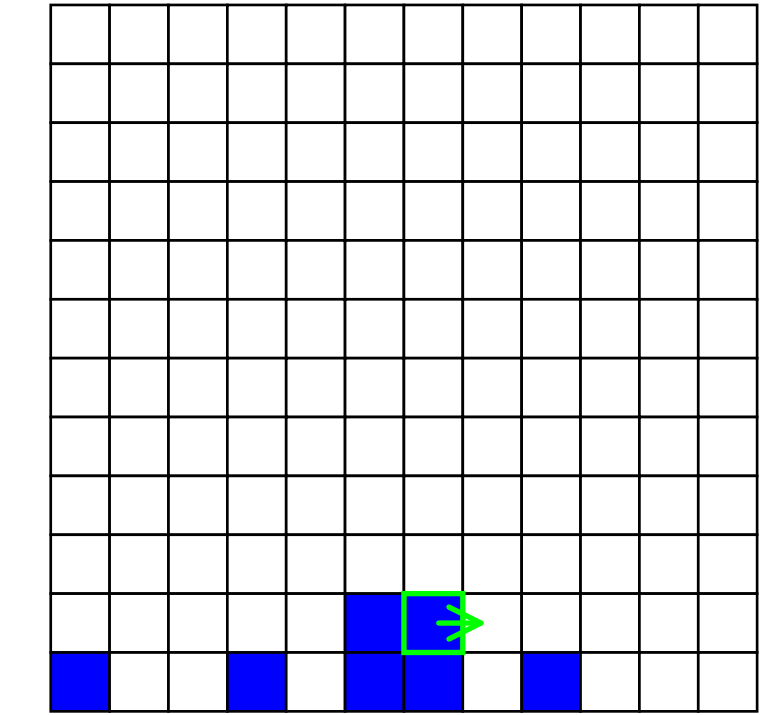
INITIAL STATE: (MOVE 1)

Perform: move\_right at position: (10, 1):



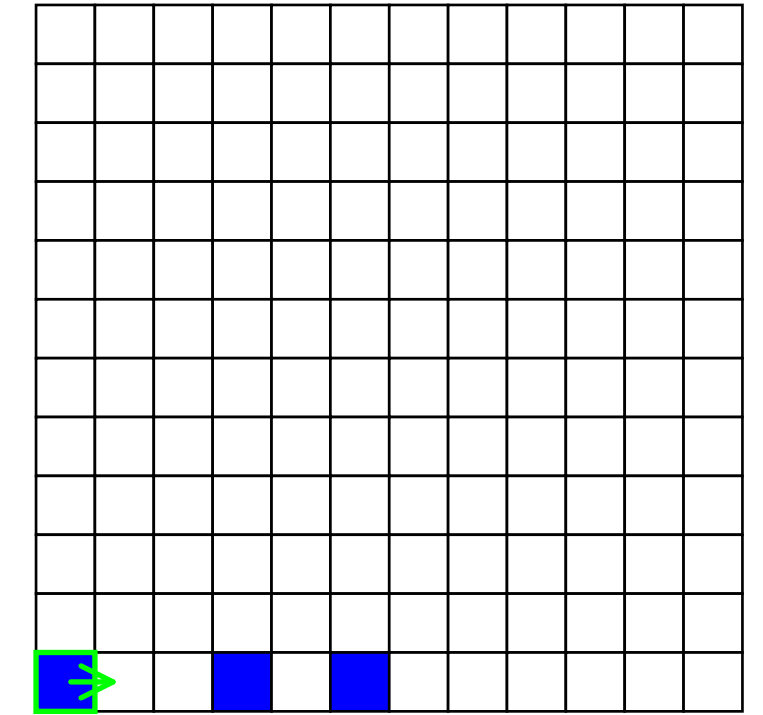
(MOVE 2)

Perform: move\_right at position: (10, 6):



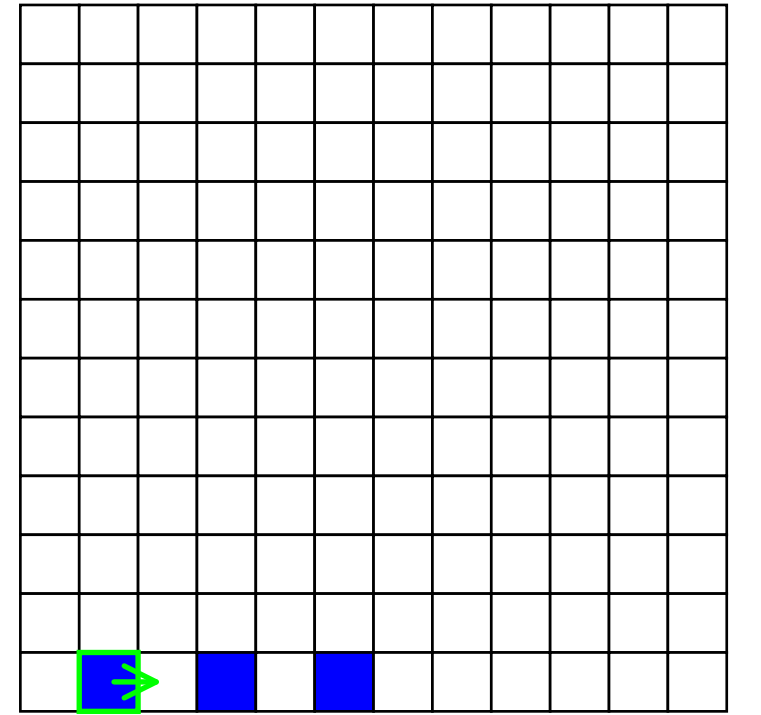
(MOVE 3)

Perform: move\_right at position: (11, 0):



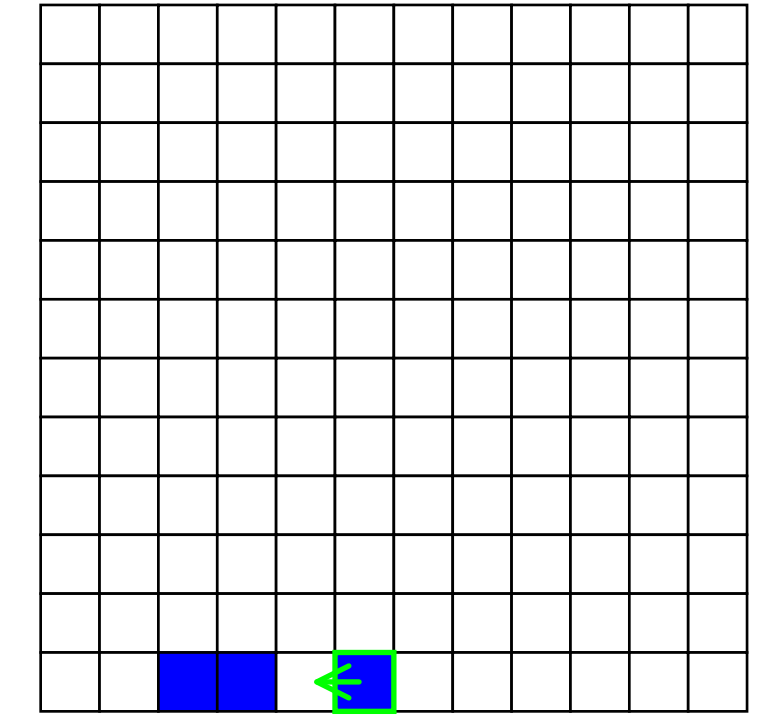
(MOVE 4)

Perform: move\_right at position: (11, 1):

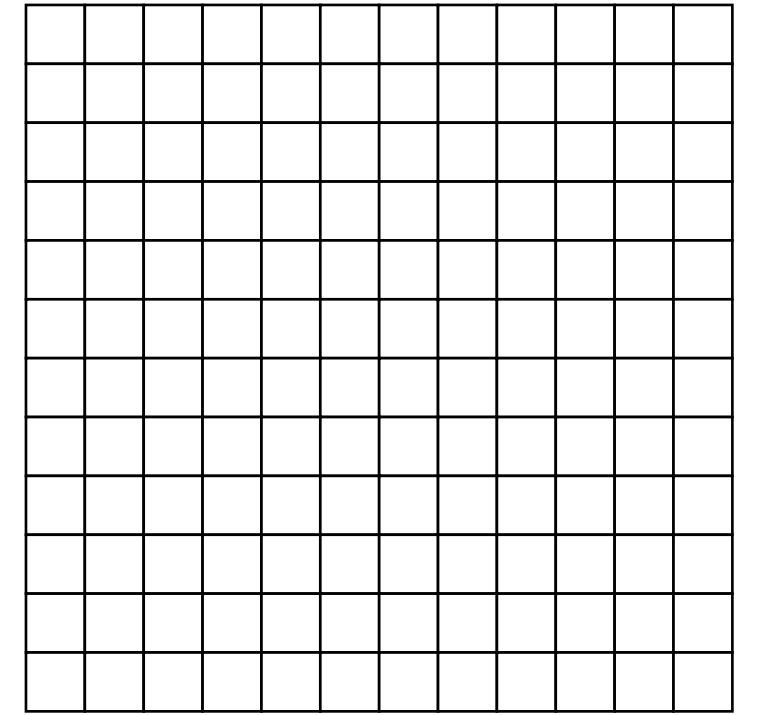


(MOVE 5)

Perform: move\_left at position: (11, 5):



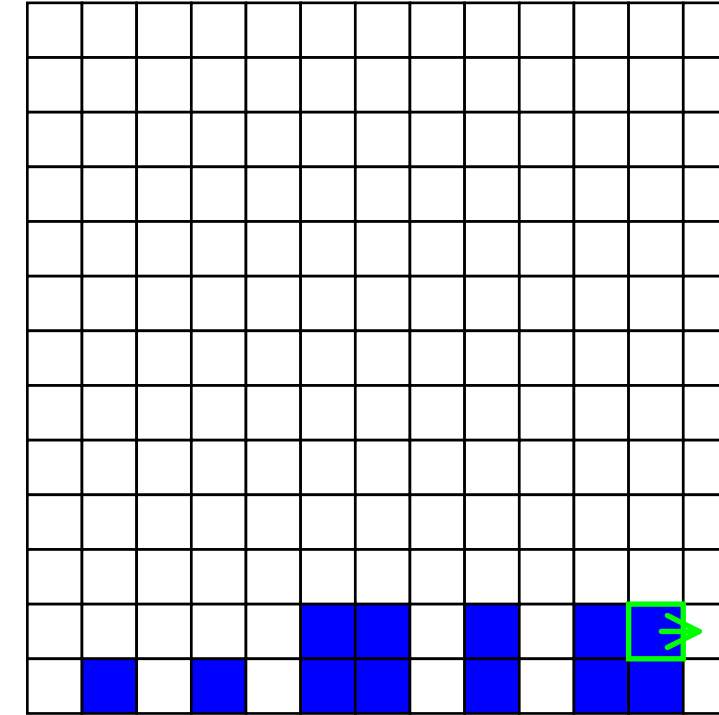
FINAL STATE



...:SOLUTION:...: Solvable in 5 moves (blocks positions: {(11, 5): <Color: blue>, (11, 6): <Color: blue>, (11, 8): <Color: blue>, (11, 10): <Color: blue>, (11, 11): <Color: blue>, (12, 1): <Color: blue>, (12, 3): <Color: blue>, (12, 5): <Color: blue>, (12, 6): <Color: blue>, (12, 8): <Color: blue>, (12, 10): <Color: blue>, (12, 11): <Color: blue>})

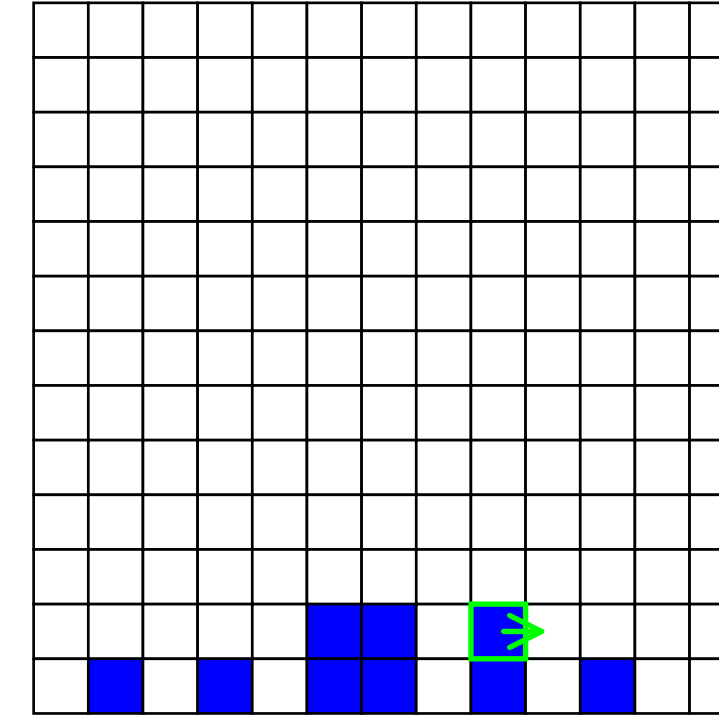
INITIAL STATE: (MOVE 1)

Perform: move\_right at position: (11, 11):



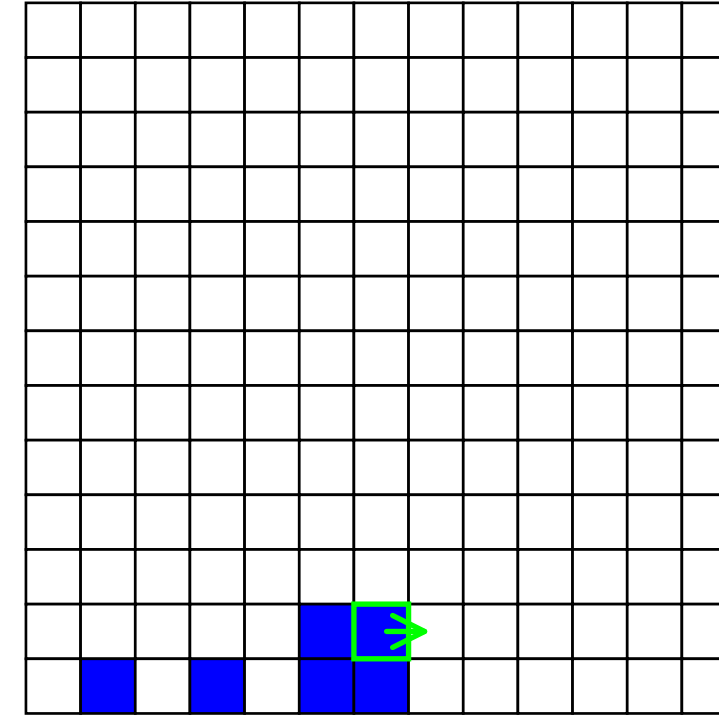
(MOVE 2)

Perform: move\_right at position: (11, 8):



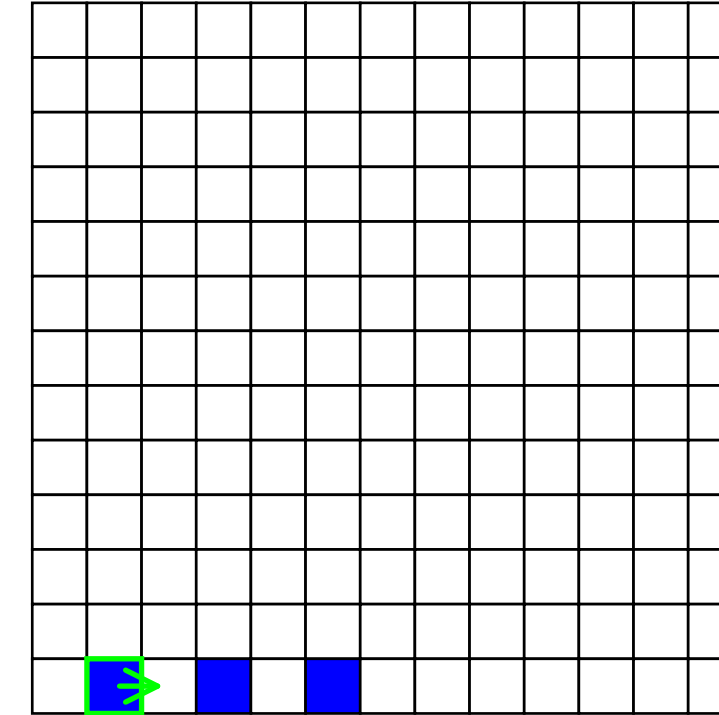
(MOVE 3)

Perform: move\_right at position: (11, 6):



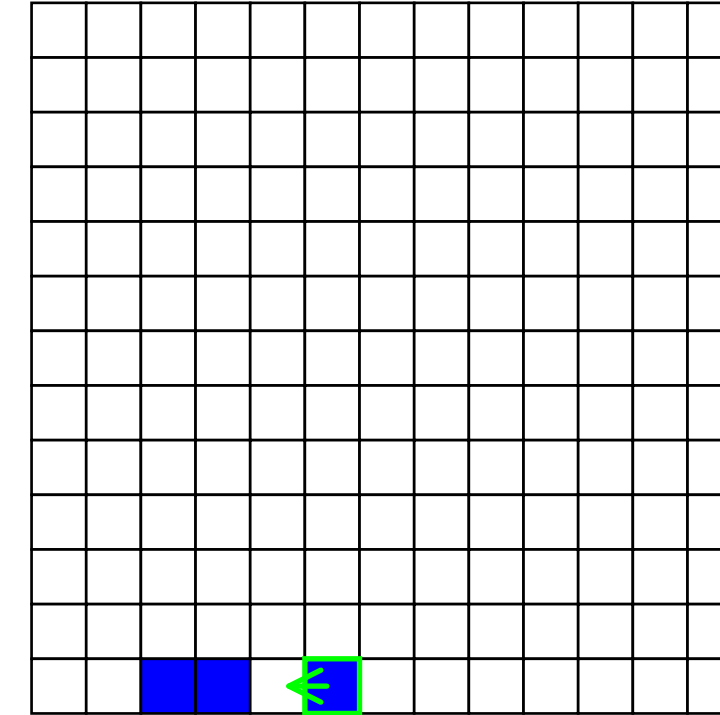
(MOVE 4)

Perform: move\_right at position: (12, 1):

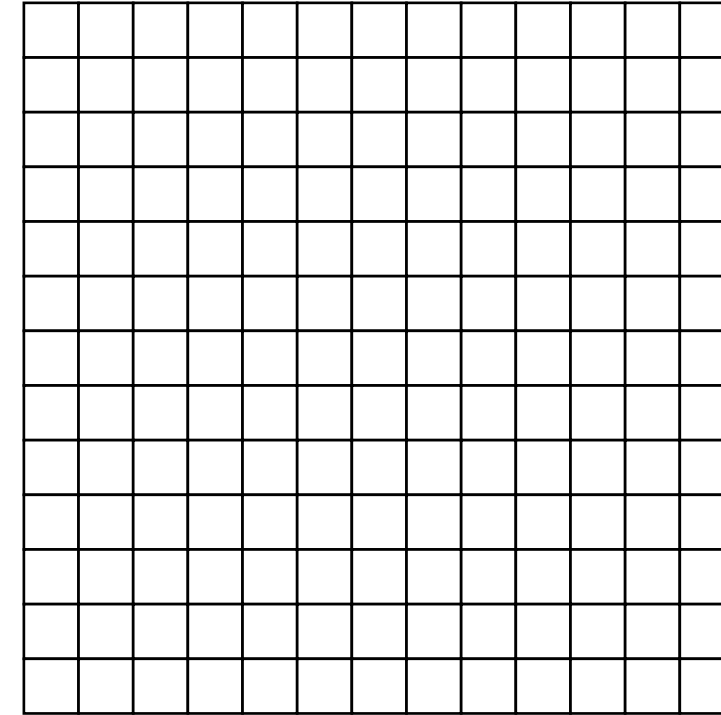


(MOVE 5)

Perform: move\_left at position: (12, 5):

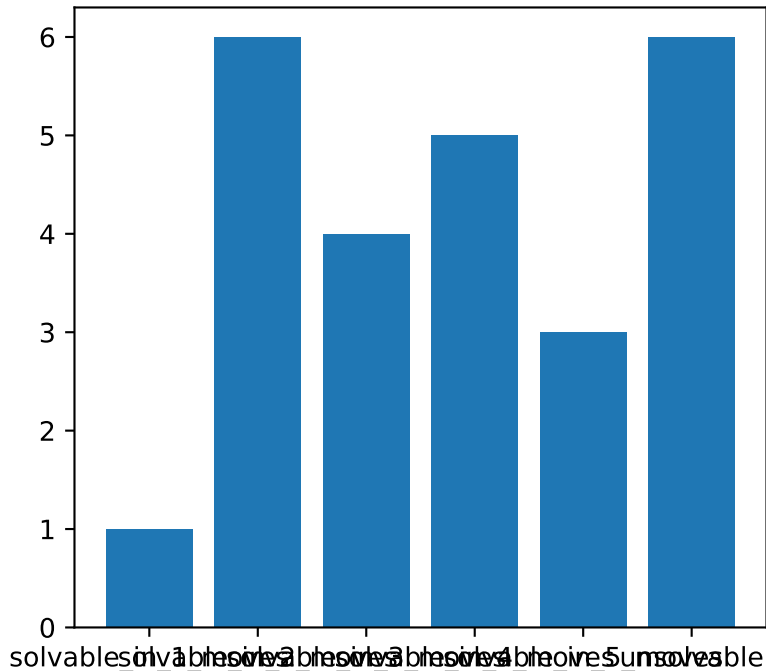


FINAL STATE





### Number of Puzzles Generated (Bar Chart)



### Number of Puzzles Generated (Pie Chart)

