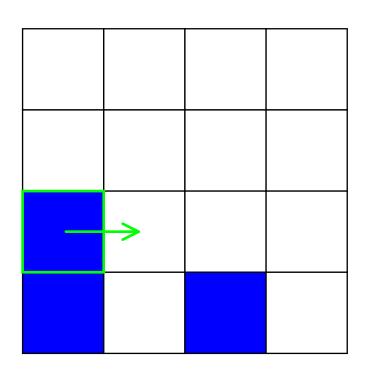
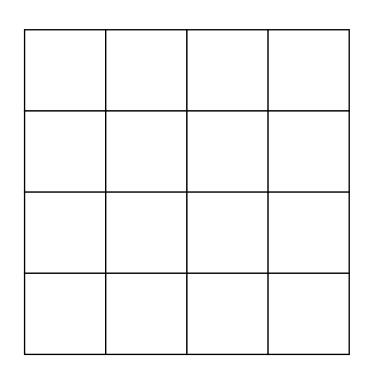
..::SOLUTION:...: Solvable in 1 moves (blocks positions: {(2, 0): <Color: blue>, (3, 0): <Color: blue>, (3, 2): <Color: blue>})

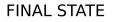
INITIAL STATE: (MOVE 1)
Perform: move\_right at position: (2, 0):

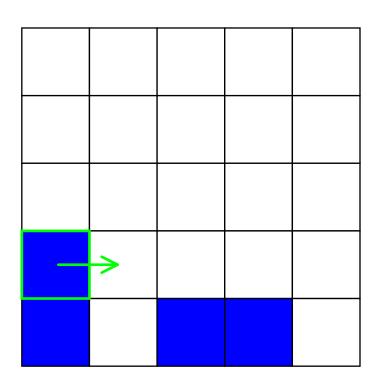


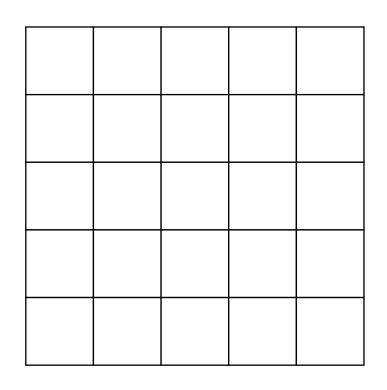


..::SOLUTION:...: Solvable in 1 moves (blocks positions: {(3, 0): <Color: blue>, (4, 0): <Color: blue>, (4, 2): <Color: blue>, (4,

INITIAL STATE: (MOVE 1)
Perform: move\_right at position: (3, 0):



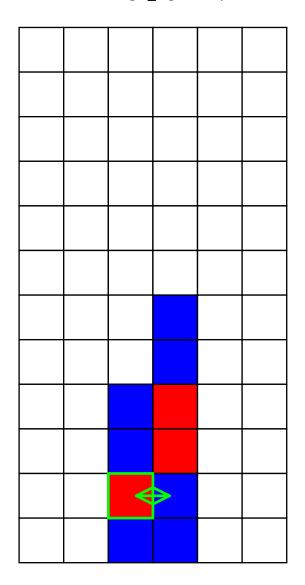


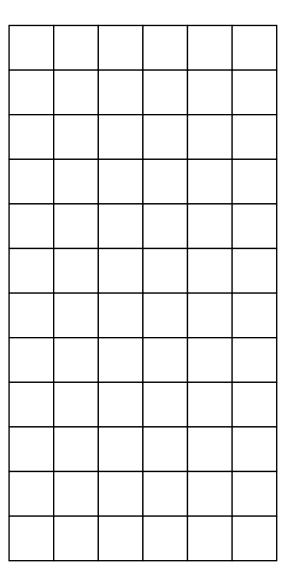


..::SOLUTION:..: Solvable in 1 moves (blocks positions: {(6, 3): <Color: blue>, (7, 3): <Color: blue>, (8, 2): <Color: blue

INITIAL STATE: (MOVE 1)
Perform: exchange\_right at position: (10, 2):

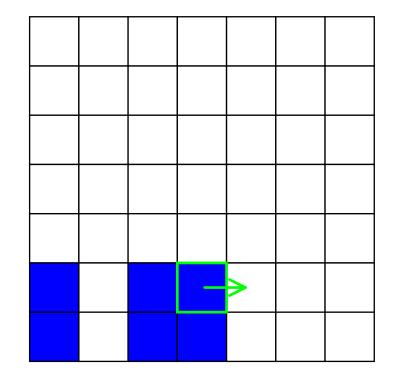




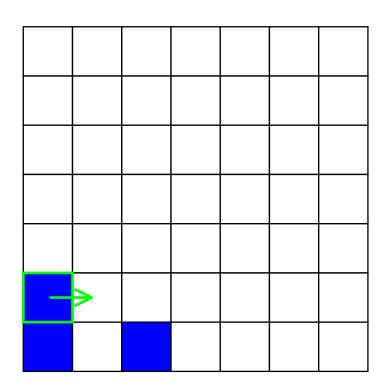


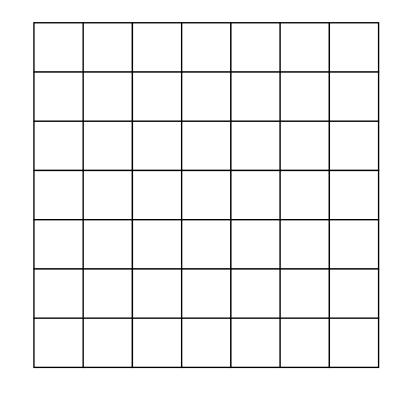
..::SOLUTION:...: Solvable in 2 moves (blocks positions: {(5, 0): <Color: blue>, (5, 2): <Color: blue>, (5, 3): <Color: blue>, (6, 0): <Color: blue>, (6, 2): <Color: blue>, (6, 3): <Color: blue>, (8, 3): <C

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



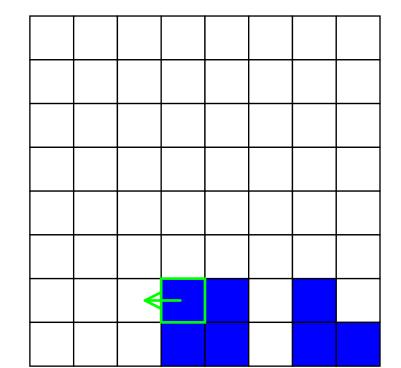
(MOVE 2)
Perform: move\_right at position: (5, 0):



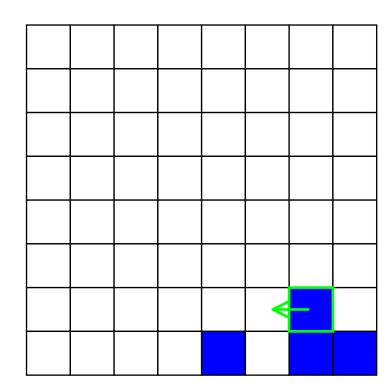


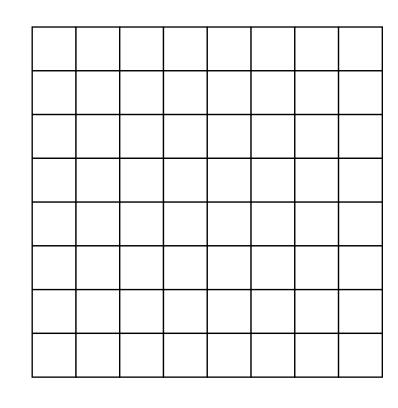
..::SOLUTION:...: Solvable in 2 moves (blocks positions: {(6, 3): <Color: blue>, (6, 4): <Color: blue>, (6, 6): <Color: blue>, (7, 3): <Color: blue>, (7, 4): <Color: blue>, (7, 6): <Color: blue>,

INITIAL STATE: (MOVE 1)
Perform: move\_left at position: (6, 3):



(MOVE 2)
Perform: move\_left at position: (6, 6):

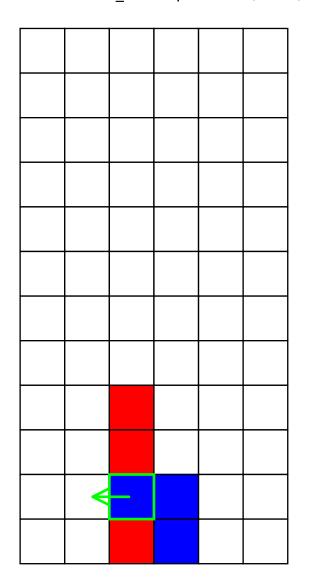


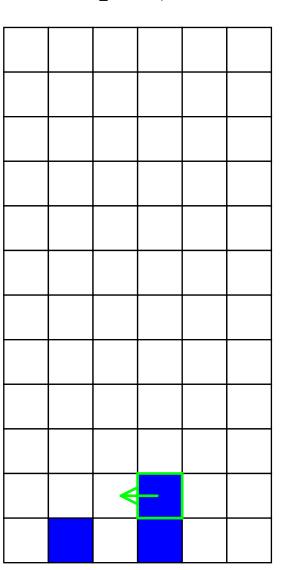


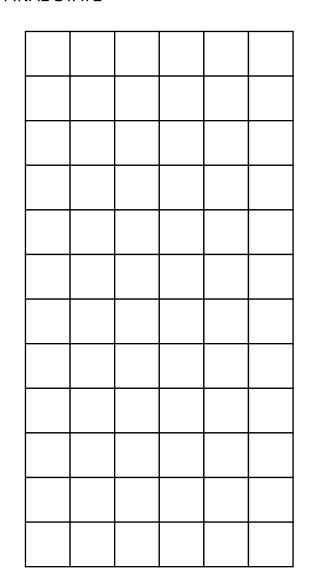
.:::SOLUTION::..: Solvable in 2 moves (blocks positions: {(8, 2): <Color: red>, (9, 2): <Color: red>, (10, 2): <Color: blue>, (10, 3): <Color: blue>, (11, 2): <Color: red>, (11, 3): <Color:

INITIAL STATE: (MOVE 1)
Perform: move\_left at position: (10, 2):

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



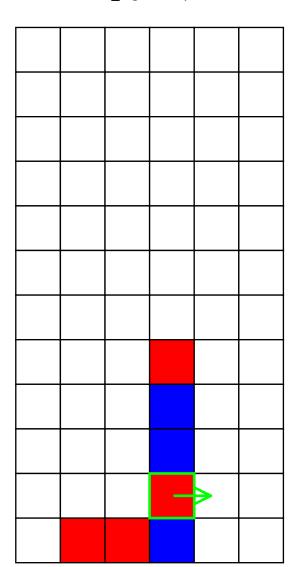




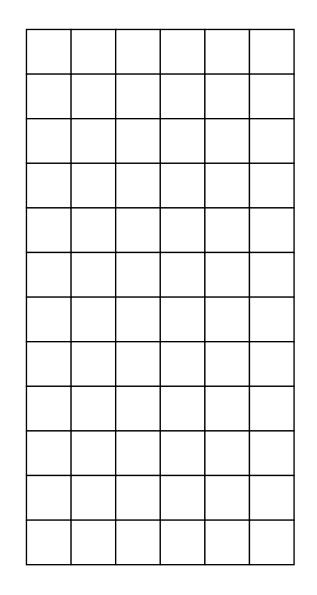
.:::SOLUTION::..: Solvable in 2 moves (blocks positions: {(6, 3): <Color: red>, (7, 3): <Color: blue>, (8, 3): <Color: blue>, (9, 3): <Color: red>, (10, 3): <Color: red>, (11, 1): <Color: red>

INITIAL STATE: (MOVE 1)
Perform: move\_left at position: (9, 3):

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

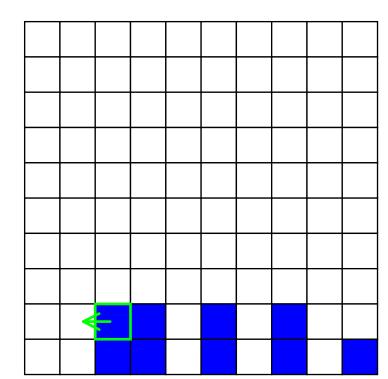


FINAL STATE

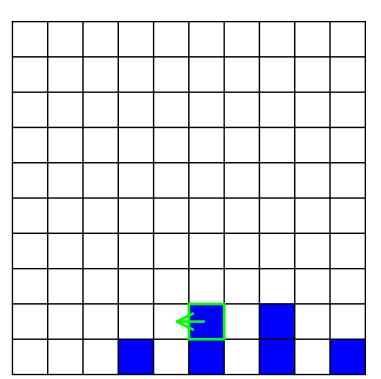


..::SOLUTION:...: Solvable in 3 moves (blocks positions: {(8, 2): <Color: blue>, (8, 3): <Color: blue>, (8, 5): <Color: blue>, (9, 2): <Color: blue>, (9, 3): <Color: blue>, (9, 5): <Color: blue>, (9, 7): <Color: blue>, (9, 9): <Color: blue>, (9, 9): <Color: blue>, (9, 2): <Color: blue>, (9, 3): <Color: blue>, (9, 5): <Color: blue>, (9, 7): <Color: blue>, (9, 9): <Color: blue>, (9, 1): <Color: blue>, (9, 1): <Color: blue>, (9, 1): <Color: blue>, (10, 1): <Col

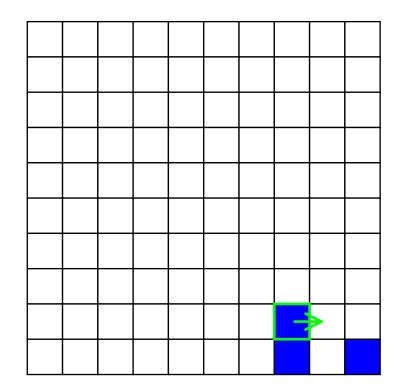
INITIAL STATE: (MOVE 1)
Perform: move\_left at position: (8, 2):

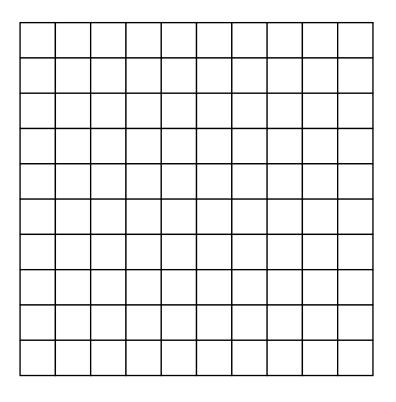


(MOVE 2)
Perform: move\_left at position: (8, 5):



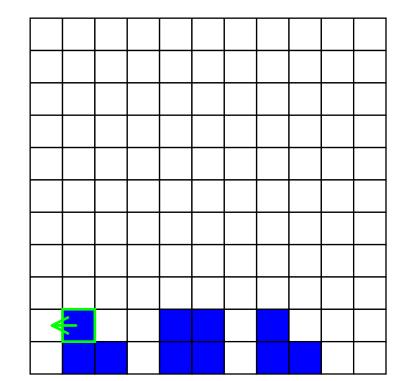
(MOVE 3)
Perform: move\_right at position: (8, 7):



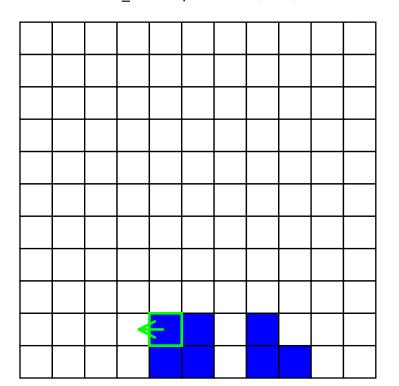


..::SOLUTION:...: Solvable in 3 moves (blocks positions: {(9, 1): <Color: blue>, (9, 4): <Color: blue>, (9, 5): <Color: blue>, (10, 1): <Color: blue>, (10, 2): <Color: blue>, (10, 4): <Color: blue>, (10, 5): <Color: blue>, (10, 7): <Color: blue>, (20, 7): <Color: blue>, (20, 2): <Color: blue>, (20, 4): <Color: blue>, (20, 2): <Color: blue>, (20, 2): <Color: blue>, (20, 4): <Color: blue>, (20, 2): <Color: blue>,

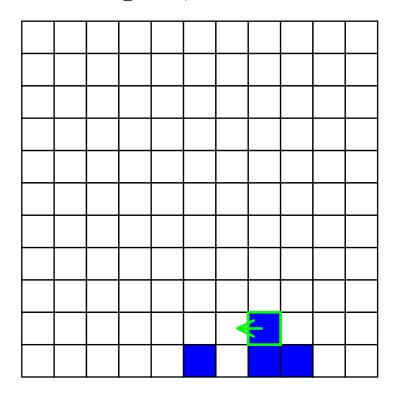
INITIAL STATE: (MOVE 1)
Perform: move\_left at position: (9, 1):

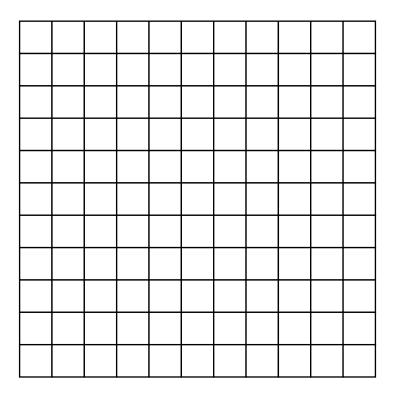


(MOVE 2)
Perform: move\_left at position: (9, 4):



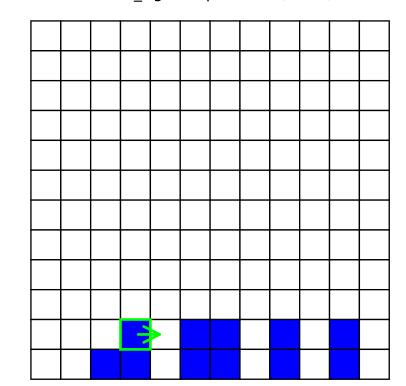
(MOVE 3)
Perform: move\_left at position: (9, 7):



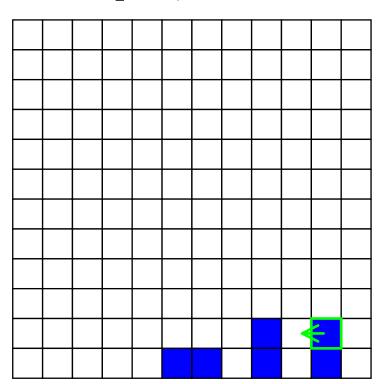


..::SOLUTION:...: Solvable in 3 moves (blocks positions: {(10, 3): <Color: blue>, (10, 5): <Color: blue>, (10, 6): <Color: blue>, (10, 10): <Color: blue>, (11, 2): <Color: blue>, (11, 3): <Color: blue>, (11, 5): <Color: blue>, (11, 6)

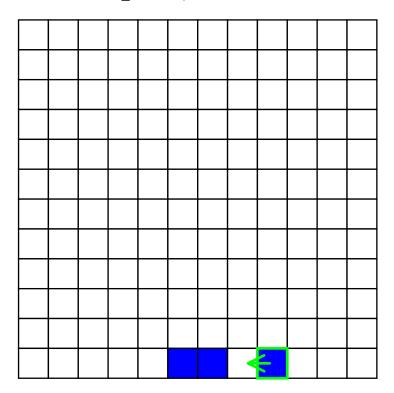
INITIAL STATE: (MOVE 1)
Perform: move\_right at position: (10, 3):

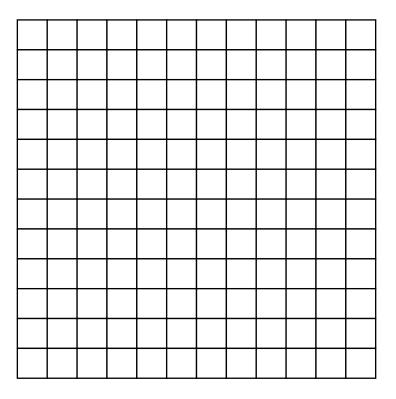


(MOVE 2)
Perform: move\_left at position: (10, 10):



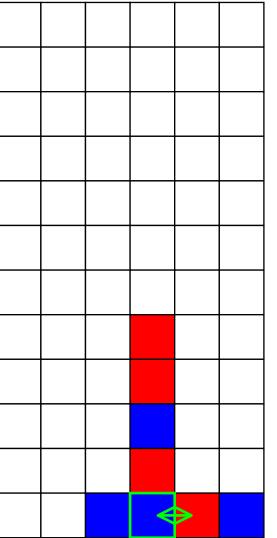
(MOVE 3)
Perform: move\_left at position: (11, 8):

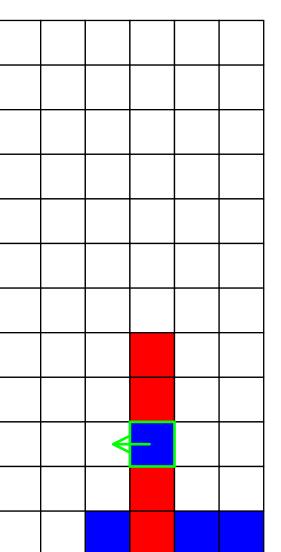


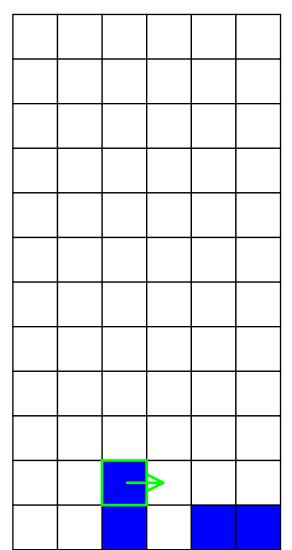


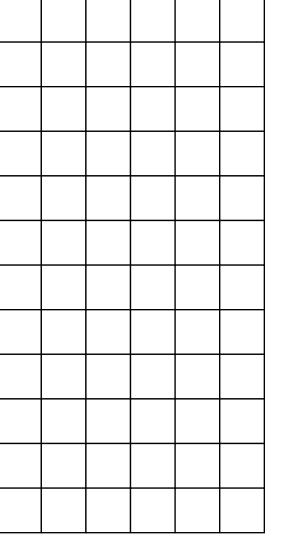
..::SOLUTION:...: Solvable in 3 moves (blocks positions: {(7, 3): <Color: red>, (8, 3): <Color: red>, (9, 3): <Color: blue>, (10, 3): <Color: red>, (11, 2): <Color: blue>, (11, 3): <Color: blue>, (11, 4): <Color: red>, (11, 5): <Color: blue>})

INITIAL STATE: (MOVE 1)
Perform: exchange\_right at position: (11, 3):
Perform: move\_left at position: (9, 3):
Perform: move\_right at position: (10, 2):
Perform: mo

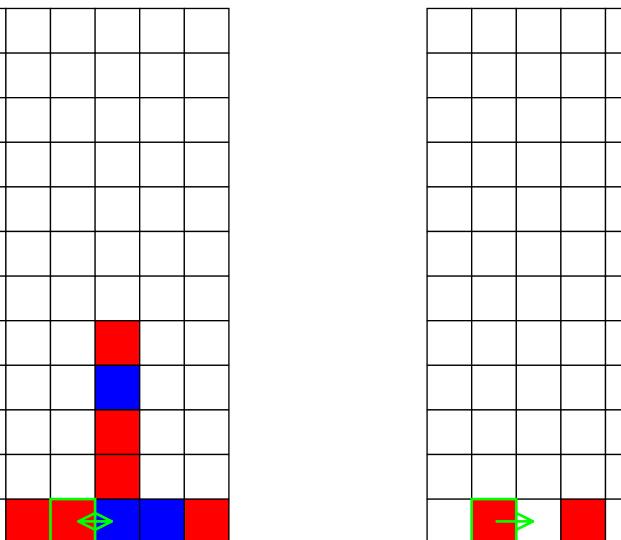


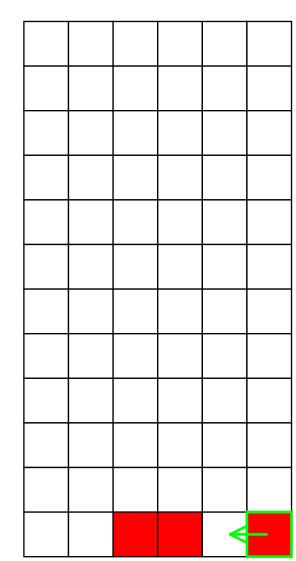


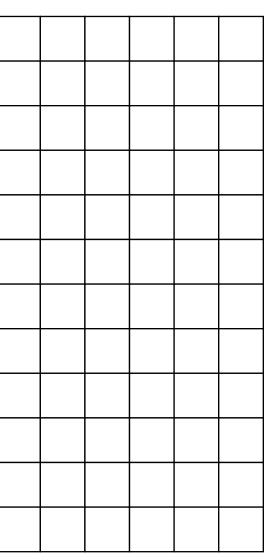




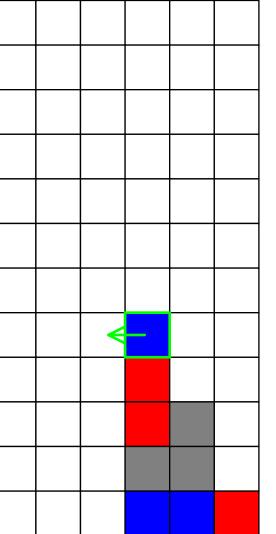
..::SOLUTION:...: Solvable in 3 moves (blocks positions: {(7, 3): <Color: red>, (8, 3): <Color: blue>, (9, 3): <Color: red>, (10, 3): <Color: red>, (11, 1): <Color: red>, (11, 2): <Color: red>, (11, 3): <Color: blue>, (11, 4): <Color: blue>, (11, 5): <Color: blue>, (11, 5): <Color: blue>, (11, 1): <Color: red>, (11, 2): <Color: blue>, (11, 4): <Color: blue>, (11, 5): <Color: blue>, (11, 5): <Color: blue>, (11, 5): <Color: red>, (11, 1): <Color: red>, (11, 1): <Color: red>, (11, 1): <Color: red>, (11, 2): <Color: red>, (11, 2): <Color: red>, (11, 2): <Color: blue>, (11, 4): <Color: blue>, (11, 5): <Color: blue>, (11, 5): <Color: blue>, (11, 5): <Color: red>, (11, 1): <Color: red>, (11, 1): <Color: red>, (11, 1): <Color: red>, (11, 2): <Color: blue>, (11, 5): <

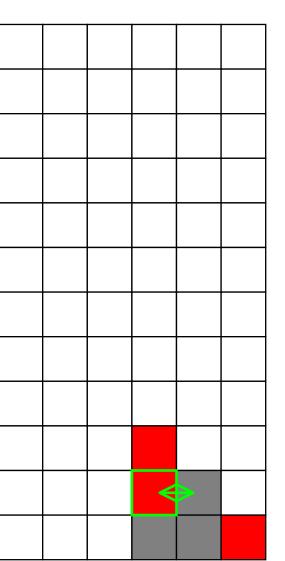


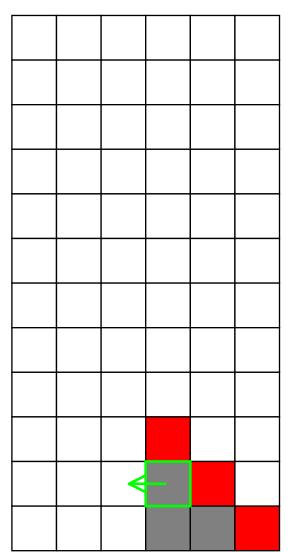


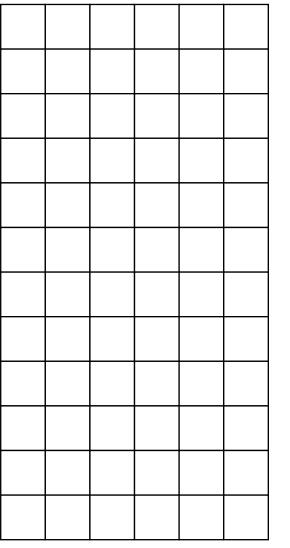


..::SOLUTION:...: Solvable in 3 moves (blocks positions: {(7, 3): <Color: blue>, (8, 3): <Color: red>, (9, 4): <Color: gray>, (10, 3): <Color: gray>, (10, 4): <Color: gray>, (11, 3): <Color: blue>, (11, 4): <Color: blue>, (11, 5): <INITIAL STATE: (MOVE 1)
Perform: move\_left at position: (7, 3):
Perform: exchange\_right at position: (10, 3):
Perform: move\_left at p



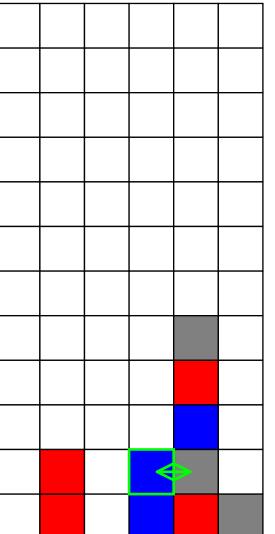


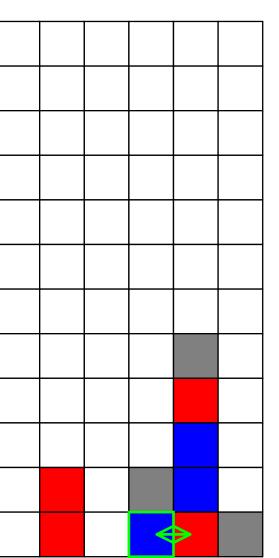


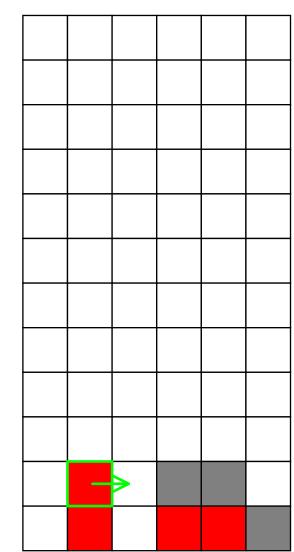


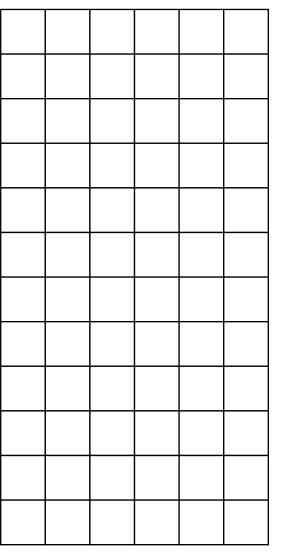
...:SOLUTION:...: Solvable in 3 moves (blocks positions: {(7, 4): <Color: gray>, (8, 4): <Color: red>, (9, 4): <Color: blue>, (10, 1): <Color: red>, (10, 3): <Color: blue>, (10, 4): <Color: gray>, (11, 1): <Color: red>, (11, 3): <Color: blue>, (11, 4): <

INITIAL STATE: (MOVE 1)
Perform: exchange\_right at position: (10, 3):
Perform: exchange\_right at position: (10, 3):
Perform: move\_right at position: (10, 1):
Perform: move\_right at position: (10









..::SOLUTION:...: Solvable in 4 moves (blocks positions: {(7, 2): <Color: blue>, (7, 4): <Color: blue>, (7, 7): <Color: blue>, (8, 2): <Color: blue>, (8, 4): <Color: blue>, (8, 6): <Color: blue>, (8, 7): <Color: blue>}) (MOVE 2)
Perform: move\_right at position: (7, 7): INITIAL STATE: (MOVE 1)
Perform: move\_left at position: (7, 2): (MOVE 3)
Perform: move\_left at position: (8, 6): (MOVE 4)
Perform: move\_left at position: (7, 4): FINAL STATE

..::SOLUTION:...: Solvable in 4 moves (blocks positions: {(11, 0): <Color: blue>, (11, 4): <Color: blue>, (11, 10): <Color: blue>, (12, 2): <Color: blue>, (12, 2): <Color: blue>, (12, 4): <Color: blue>, (12, 6): <Color: blue>, (12, 8): <Color: blue>, (12, 8): <Color: blue>, (12, 10): <Color: blu (MOVE 2)
Perform: move\_left at position: (11, 4): (MOVE 3)
Perform: move\_right at position: (11, 6): (MOVE 4)
Perform: move\_left at position: (11, 10): INITIAL STATE: (MOVE 1) Perform: move\_right at position: (11, 0): FINAL STATE

..::SOLUTION:...: Solvable in 4 moves (blocks positions: {(7, 3): <Color: red>, (8, 3): <Color: red>, (10, 1): <Color: blue>, (10, 4): <Color: blue>, (11, 1): <Color: blue>, (11, 1): <Color: red>, (11, 2): <Color: blue>, (11, 3): <Color: red>, (11, 4): <Color: red>}) (MOVE 3)
Perform: move\_left at position: (11, 4): (MOVE 2)
Perform: move\_left at position: (9, 3): (MOVE 4)
Perform: exchange\_right at position: (11, 2): INITIAL STATE: (MOVE 1)
Perform: move\_left at position: (9, 1): FINAL STATE

..::SOLUTION:...: Solvable in 4 moves (blocks positions: {(3, 3): <Color: blue>, (4, 3): <Color: red>, (5, 3): <Color: blue>, (6, 3): <Color: blue>, (9, 3): <Color: blue>, (10, 1): <Color: blue>, (10, 3): <Color: gray>, (11, 1): <Color: red>, (11, 3): <Color: blue>}) (MOVE 3)
Perform: move\_left at position: (8, 3): (MOVE 2)
Perform: move\_right at position: (6, 3): INITIAL STATE: (MOVE 1)
Perform: move\_left at position: (4, 3): (MOVE 4)
Perform: move\_left at position: (11, 4): FINAL STATE

..::SOLUTION:...: Solvable in 4 moves (blocks positions: {(8, 3): <Color: blue>, (8, 4): <Color: gray>, (10, 2): <Color: gray>, (10, 3): <Color: gray>, (10, 4): <Color: gray>, (10, 4): <Color: gray>, (11, 2): <Color: gray>, (11, 3): <Color: gray>, (11, 4): <Color: red>, (11, 2): <Color: gray>, (11, 2): <Color: gray>, (11, 3): <Color: gray>, (11, 4): <Color: red>, (11, 2): <Color: gray>, (11, 2): <Color: gray>, (11, 3): <Color: gray>, (11, 4): <Color: gray>, (11, 4): <Color: gray>, (11, 4): <Color: gray>, (11, 2): <Color: gray>, (11, 2): <Color: gray>, (11, 3): <Color: gray>, (11, 4): <Color: gray>, (MOVE 3)
Perform: move\_left at position: (11, 5): INITIAL STATE: (MOVE 1)
Perform: exchange\_right at position: (9, 3): (MOVE 2)
Perform: move\_left at position: (11, 2): (MOVE 4)
Perform: move\_left at position: (11, 4): FINAL STATE

..::SOLUTION:...: Solvable in 5 moves (blocks positions: {(4, 3): <Color: blue>, (4, 5): <Color: blue>, (5, 2): <Color: blue>, (5, 3): <Color: blue>, (5, 5): <Color: blue>}) (MOVE 3)
Perform: move\_left at position: (4, 2): INITIAL STATE: (MOVE 1)
Perform: move\_left at position: (4, 3): (MOVE 2)
Perform: move\_right at position: (5, 3): (MOVE 4)
Perform: move\_left at position: (4, 5): (MOVE 5)
Perform: move\_left at position: (4, 4): FINAL STATE

..::SOLUTION:...: Solvable in 5 moves (blocks positions:  $\{(7, 3): < Color: blue>, (11, 4): < Color: blue>, (11, 1): < Color: blue>, (11, 1): < Color: blue>, (11, 1): < Color: blue>, (11, 2): < Color: blue>, (11, 3): < Color: blue>, (11, 4): < Color: blue>, (11, 1): < Color: blue>, (11, 2): < C$ (MOVE 2)
Perform: exchange\_right at position: (11, 2): (MOVE 5)
Perform: move\_left at position: (10, 4): INITIAL STATE: (MOVE 1) (MOVE 3)
Perform: exchange\_right at position: (11, 3): (MOVE 4)
Perform: move\_right at position: (11, 0): Perform: move\_right at position: (7, 3): FINAL STATE

