CheckerBoard(void) – [Test\_Constructor]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: N/A  State: N/A | Output: N/A  State:  pieceCount = x = 12, o = 12  viableDirections = x = SW, SE; o = NW, NE  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

whatsAtPos(BoardPosition pos) – testWhatsAtPos\_MaxRow\_MinCol\_BlackTile

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: (7,0)  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: ‘\*’  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

whatsAtPos(BoardPosition pos) – testWhatsAtPos\_MinRow\_MinCol\_WhiteTile

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: (0,0)  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: ‘x’  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

whatsAtPos(BoardPosition pos) – testWhatsAtPos\_MaxRow\_MaxCol\_BlackTile

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: (7, 7)  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: ‘\*’  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

whatsAtPos(BoardPosition pos) – testWhatsAtPos\_MinRow\_MaxCol\_WhiteTile

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: (0, 7)  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: ‘o’  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

whatsAtPos(BoardPosition pos) – testWhatsAtPos\_MidRow\_MidCol\_WhiteTile

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: (3, 3)  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: ‘ ‘  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

placePiece(BoardPosition pos, char player) – [test\_placePiece\_pos07\_x]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: [0, 7] x  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: n/a  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | x | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

placePiece(BoardPosition pos, char player) – [test\_placePiece\_pos00\_o]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: [0,0] o  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: n/a  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | o | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

placePiece(BoardPosition pos, char player) – [test\_placePiece\_pos70\_x]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: [7,0] x  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: n/a  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | x | o | \* | o | \* | o | \* | o | |

placePiece(BoardPosition pos, char player) – [test\_placePiece\_pos77\_x]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: [7, 7] x  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: n/a  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | O | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | x | |

placePiece(BoardPosition pos, char player) – [test\_placePiece\_pos44\_o]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: [4, 4] o  State:  Board =     |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: n/a  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | X | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | X | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* | o | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | O | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

getPieceCounts(void) – [Test\_getPieceCounts\_12]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: N/A  State:  pieceCount = x = 12, o = 12  viableDirections = x = SW, SE; o = NW, NE  board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: 12, 12  State:  pieceCount = x = 12, o = 12  viableDirections = x = SW, SE; o = NW, NE  board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | X | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | X | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | O | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

getViableDirections(void) – [Test\_getViableDirections\_start]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: N/a  State:  pieceCount = x = 12, o = 12  viableDirections = x = SW, SE; o = NW, NE  board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | X | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | X | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | O | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: x = SW, SE; o = NW, NE  State:  pieceCount = x = 12, o = 12  viableDirections = x = SW, SE; o = NW, NE  board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | X | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | X | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | O | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

#### checkPlayerWin(Character player) – [test\_checkPlayerWin\_playerXWin]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input:Character player = “x”State:Board contains only “x” pieces/ all “o” pieces have been captured.  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* |  | \* |  | \* |  | \* |  | | Output:Returns trueState:No change. |

#### checkPlayerWin(Character player) – [test\_checkPlayerWin\_playerXLosing]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input:Character player = “x”State:Board contains “o” pieces and a singular “x” piece  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | |  | \* |  | \* |  | \* |  | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output:Returns falseState:No change. |

#### crownPiece(BoardPosition posOfPlayer) – [test\_crownPiece\_playerCrown]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input:BoardPosition(7, 1)State:Piece is lowercase (“x”) at position (7, 1)  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output:N/AState:Position should be replaced with an uppercase character (so “x” becomes “X” to reflect the crowned piece).  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | O | \* | o | \* | o | \* | o | |

#### crownPiece(BoardPosition posOfPlayer) – [test\_crownPiece\_noCrown]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input:BoardPosition(3, 3)State:Piece is lowercase at position (3, 3)  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output:N/AState:No change.  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* |  | \* |  | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | \* | x | \* | **X** | \* |  | \* |  | | x | \* | x | \* | x | \* | x | \* | x | \* |  | \* |  | \* | o | \* | | \* |  | \* |  | \* |  | \* |  | \* |  | \* | o | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | \* |  | \* |  | \* |  | \* | o | | o | \* | o | \* | o | \* | o | \* |  | \* |  | \* |  | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | \* | x | \* |  | \* |  | \* |  | |

#### crownPiece(BoardPosition posOfPlayer) – [test\_crownPiece\_edge]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input:BoardPosition (0, 0)State:Piece is lowercase at position (0, 0)  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output:N/AState:Position should be replaced with an uppercase character (so “o” becomes “O” to reflect the crowned piece).  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | X | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

#### crownPiece(BoardPosition posOfPlayer) – [test\_crownPiece\_crownTwice]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input:BoardPosition (0, 0)State:Piece is uppercase at position (0, 0)  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | X | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output:N/AState:No change. |

movePiece(BoardPosition startingPos, DirectionEnum dir) – [test\_movePiece\_pos00]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: [0, 0] SE  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | Output: [1,1]  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | |  | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

movePiece(BoardPosition startingPos, DirectionEnum dir) – [test\_movePiece\_pos77]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: [7, 7] NW  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | Output:[6,6]  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | X | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | X | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* |  | |

movePiece(BoardPosition startingPos, DirectionEnum dir) – [test\_movePiece\_\_pos53]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: [5, 3] NE  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: [4,4]  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* | o | \* |  | \* | | \* | o | \* |  | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

jumpPiece(BoardPosition startingPos, DirectionEnum dir) – [Test\_jumpPieceFrom\_13SW]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input:[1,3] SW  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: [2,2]  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* |  | \* | x | \* | x | | x | \* |  | \* | x | \* | x | \* | | \* | x | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | O | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

jumpPiece(BoardPosition startingPos, DirectionEnum dir) – [Test\_jumpPieceFrom\_60NE]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input:[6,0] NE  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: [4,2]  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | X | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | X | | x | \* | X | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* | O | \* |  | \* |  | \* | | \* |  | \* | o | \* | o | \* | O | |  | \* | O | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | O | |

jumpPiece(BoardPosition startingPos, DirectionEnum dir) – [Test\_jumpPieceFrom\_13SW]

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: [1,3] SE  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output: [3,5]  State:  Board =   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* |  | \* | x | \* | X | | x | \* | x | \* |  | \* | x | \* | | \* |  | \* |  | \* | x | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | O | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | O | |

scanSurroundingPositions(BoardPosition startingPos) – test\_scanSurroundingPositions\_MidRow\_MidCol\_WhiteTile

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: (3,3)  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output:  DirectionEnum.SE = ‘ ’  DirectionEnum.NE = ‘x’  DirectionEnum.SW = ‘ ’  DirectionEnum.NW = ‘x’  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | O | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | O | |

scanSurroundingPositions(BoardPosition startingPos) – test\_scanSurroundingPositions\_minRow\_MaxCol\_BlackTile

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: (0, 7)  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output:  DirectionEnum.SE = N/A  DirectionEnum.NE = N/A  DirectionEnum.SW = ‘\*’  DirectionEnum.NW = N/A  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | X | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

scanSurroundingPositions(BoardPosition startingPos) – test\_scanSurroundingPositions\_MaxRow\_SecondCol\_WhiteTile

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Input: (7, 1)  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | x | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | o | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | | Output:  DirectionEnum.SE = N/A  DirectionEnum.NE = ‘o’  DirectionEnum.SW = N/A  DirectionEnum.NW = ‘o’  State:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | \* | x | \* | x | \* | x | \* | | \* | x | \* | x | \* | x | \* | X | | x | \* | x | \* | x | \* | x | \* | | \* |  | \* |  | \* |  | \* |  | |  | \* |  | \* |  | \* |  | \* | | \* | o | \* | o | \* | o | \* | O | | o | \* | o | \* | o | \* | o | \* | | \* | o | \* | o | \* | o | \* | o | |

#### getDirection(DirectionEnum dir) – [test\_getDirection\_southeastSE]

|  |  |
| --- | --- |
| Input:DirectionEnum.SEState:Piece is at position (3, 3) | Output:Returns BoardPosition(4, 4)(Position has moved 1 row down, 1 column right)State:No change. |

#### What tests did each team member write? Just tell me the names of the functions (unless for some reason multiple team members wrote functions for the same method. In that case, tell me which tests specifically by giving me the test names)

|  |  |
| --- | --- |
| Elise James | whatsAtPos(BoardPosition)  scanSurroundingPositions(BoardPosition) |
| Jada Hall | placePiece(BoardPosition, char)  movePiece(BoardPosition, DirectionEnum) |
| Molly McKenzie | CheckerBoard(int)  getPieceCounts(void)  getViableDirections(void)  jumpPiece(BoardPosition, Direction Enum) |
| Sarah Mendoza | getRowNum(void)  getColNum(void)  checkPlayerWin(Character)  crownPiece(BoardPosition)  getDirection(DirectionEnum) |