

BACK

Pawn Race

188,954

DESCRIPTION

MY SOLUTIONS

LEADERBOARD

COMMENTS

README

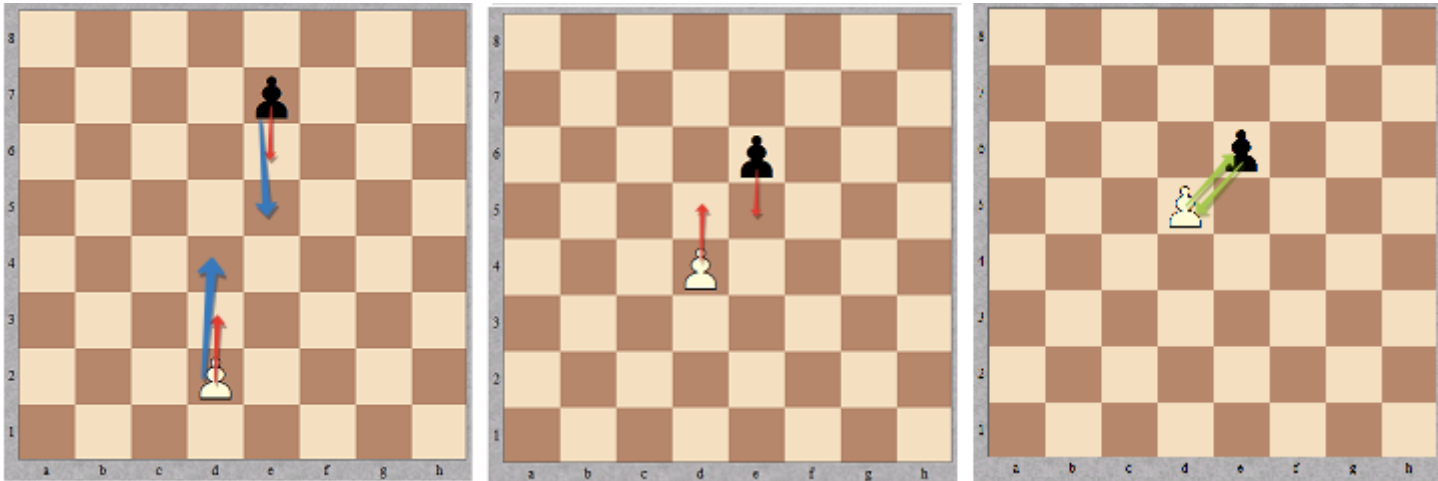
CODEWRITING

SCORE: 300/300

*Pawn race* is a game for two people, played on an ordinary  $8 \times 8$  chessboard. The first player has a white pawn, the second one - a black pawn. Initially the pawns are placed somewhere on the board so that the 1<sup>st</sup> and the 8<sup>th</sup> rows are not occupied. Players take turns to make a move.

White pawn moves upwards, black one moves downwards. The following moves are allowed:

- one-cell move on the same vertical in the allowed direction;
- two-cell move on the same vertical in the allowed direction, if the pawn is standing on the 2<sup>nd</sup> (for the white pawn) or the 7<sup>th</sup> (for the black pawn) row. Note that even with the two-cell move a pawn can't jump over the opponent's pawn;
- capture move one cell forward in the allowed direction and one cell to the left or to the right.



The purpose of the game is to reach the 1<sup>st</sup> row (for the black pawn) or the 8<sup>th</sup> row (for the white one), or to capture the opponent's pawn.

Given the initial positions and whose turn it is, determine who will win or declare it a draw (i.e. it is impossible for any player to win). Assume that the players play optimally.

Example

- For white = "e2", black = "e7" and toMove = 'w', the output should be  
    pawnRace(white, black, toMove) = "draw" ;
- For white = "e3", black = "d7" and toMove = 'b', the output should be  
    pawnRace(white, black, toMove) = "black" ;
- For white = "a7", black = "h2" and toMove = 'w', the output should be  
    pawnRace(white, black, toMove) = "white" .

Input/Output

- [execution time limit] 4 seconds (js)
- [input] string white  
Coordinates of the white pawn in the chess notation.
- [input] string black  
Position of the black pawn in the same notation. It is guaranteed that white ≠ black .
- [input] char toMove  
'w' if it is the first player's turn, 'b' otherwise.
- [output] string  
"white", "black" or "draw" depending on the result of the game.

[JavaScript (ES6)] Syntax Tips

```
// Prints help message to the console
// Returns a string
function helloWorld(name) {
```