Name: play
Input:

board: a sequence, consisting of 8 sequences
representing a 8x8 chess board and the individual
square on the board can be accessed by (row,col) where
row and col are integers such 0<=row<=7 0<=col<=7;
also the board at (row, col) is one of the following integers
+1, -1, 0.

player: an integer number either -1 or +1
indicating red or black player corresponding is to play in
the current configuration

num_moves: an integer, representing representing the total
number of future moves ahead to check for both
players

Output:

an indication of which player can win if either of the two player is posssible to win then return “red wins" if red player can win or “black wins" if black player can win or "No One" if neither players can win

a. If *num_moves* is not equal to 0 do:
copy_board <- an empty sequence
black_moved <- False
red_moved <- False
foreach *seq* in *board* do:
insert a copy of the *seq* to the end of *copy_board*

If *player* is equal to 1:
for *row_ind* in 0,1,2,…7 do:
for *col_ind* in 0,1,2,…7 do:
if *board*$_{(row\_ind,\ col\_ind)}$ is equal to 1:
if *col_ind* is equal to 0 or *board*$_{(row\_ind+1,\ col\_ind-1)}$ is equal to 0:
if *col_ind* is not equal to 7:
if *copy_board*$_{(row\_ind+1,\ col\_ind+1)}$ is equal to 0:
black_moved <- True
copy_board$_{(row\_ind+1,\ col\_ind+1)}$ <- 1

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                    copy_board(row_ind, col_ind)  <-  0
                    Result <- play(copy_board, -1, num_moves-1)
                    if Result is not equal to “No One”:
                        Return Result
                    copy_board(row_ind+1, col_ind+1) <-  0
                    copy_board(row_ind, col_ind)  <-  1
                if col_ind is not equal to 0:
                    if copy_board(row_ind+1, col_ind-1) is equal to 0:
                    black_moved <- True
                    copy_board(row_ind+1, col_ind-1) <-  1
                    copy_board(row_ind, col_ind)  <-  0
                    Result <- play(copy_board, -1, num_moves-1)
                    if Result is not equal to “No One”:
                        Return Result
                    copy_board(row_ind+1, col_ind-1) <-  0
                    copy_board(row_ind, col_ind)  <-  1
    (After this execution is finished:  for row_ind in 0,1,2,…7 do:)
    if black_moved is equal to False:
        Return “Red Wins”
else:
    for row_ind in 0,1,2,…7 do:
      for col_ind in 0,1,2,…7 do:
        if board(row_ind, col_ind) is equal to -1:
          if  col_ind is equal to 7 or board(row_ind-1, col_ind+1) is equal to 0:
            if col_ind is not equal to 7:
              if copy_board(row_ind-1, col_ind+1) is equal to 0:
                red_moved <- True
                copy_board(row_ind-1, col_ind+1) <-  -1
                copy_board(row_ind, col_ind)  <-  0
                Result <- play(copy_board, 1, num_moves-1)
                if Result is not equal to “No One”:
                    Return Result
                copy_board(row_ind-1, col_ind+1) <-  0
                copy_board(row_ind, col_ind)  <-  -1
            if col_ind is not equal to 0:
              if copy_board(row_ind-1, col_ind-1) is equal to 0:
```

red_moved <- True
copy_board(*row_ind-1, col_ind-1*) <- -1
copy_board(*row_ind, col_ind*) <- 0
Result <- *play*(*copy_board,* 1*, num_moves*-1*)*
if *Result* is not equal to "No One":
Return *Result*
copy_board(*row_ind-1, col_ind-1*) <- 0
copy_board(*row_ind, col_ind*) <- -1
(After this execution is finished: for *row_ind* in 0,1,2,…7 do:)
if *red_moved* is equal to *False:*
Return "Black Wins"

b. Else:
Return "No One"

c. Return "No One"