

INPUT	PROCESSING	OUTPUT
play_again grid_size playerXmove playerYmove	<p> Assign value to player1_score = 0 Assign value to player2_score = 0 Assign global value to grid Assign global value to grid_size </p> <p>do</p> <p> Assign value to grid_size Assign value to grid, grid_size by grid_size 2D array with 0 as default values. Assign value to game_ended = false nextTurn = pick a random number 1 or 2 </p> <p>while game_ended is false</p> <p> Show grid Assign value to playerXmove Assign value to playerYmove while grid[playerXmove][playerYmove] is not 0 Assign new value to playerXmove Assign new value to playerYmove </p> <p>grid[playerXmove][playerYmove] = nextTurn</p> <p>Assign value to win = ifWinner(playerXmove, playerYmove, grid_size)</p> <p>if win = 1</p> <p> player1_score = player1_score + 1 game_ended = true Tell users player1 wins </p> <p>if win = 2</p> <p> player2_score = player2_score + 1 game_ended = true Tell users player2 wins </p>	grid(s) player1_score player2_score winner(s)

	<pre> if win = 0 if nextTurn is 1 nextTurn = 2 if nextTurn is 2 nextTurn = 1 end while Tell users the player scores Assign value to play_again End do, while play_again is "yes" </pre>	
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ifWinner		
INPUT	PROCESSING	OUTPUT
x, y	<pre> if x = y Assign playerAtDiagonal = grid[0][0] Assign value to same_player = true for location = 1...grid_size-1 if grid[location][location] is not playerAtDiagonal same_player = false quit loop end for if same_player is false return playerAtDiagonal end for if x+y = grid_size-1 Assign playerAtDiagonal = grid[0][grid_size-1] Assign value to same_player = true end if end if </pre>	One integer output (0, 1, or 2)

	<pre> for location = 1...grid_size-1 if grid[location][grid_size-location] is not playerAtDiagonal same_player = false quit loop end for if same_player is false return playerAtDiagonal Assign playerAtRow = grid[x][0] Assign value to same_player = true for location = 1...grid_size-1 if grid[x][location] is not playerAtRow same_player = false quit loop end for if same_player is false return playerAtRow Assign playerAColumn = grid[0][y] Assign value to same_player = true for location = 1...grid_size-1 if grid[location][y] is not playerAColumn same_player = false quit loop end for if same_player is false return playerAColumn return 0 </pre>	
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