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PROCESS tic_tac_toe
    SET player1_score = 0
    SET player2_score = 0
    SET GLOBAL grid
    SET GLOBAL grid_size

    DO
        INPUT grid_size
        SET grid [grid_size][grid_size]
        SET game_ended = false
        SET nextTurn = pick a random number 1 or 2

        WHILE game_ended = false
            DISPLAY grid
            INPUT playerXmove
            INPUT playerYmove

            WHILE grid[playerXmove][playerYmove] is not 0
                INPUT playerXmove
                INPUT playerYmove

            SET grid[playerXmove][playerYmove] = nextTurn

            CALCULATE win = ifWinner(playerXmove, playerYmove, grid_size)

            IF win = 1
                CALCULATE player1_score = player1_score + 1
                SET game_ended = true
                PRINT "Player 1 wins this game!"

            IF win = 2
                CALCULATE player2_score = player2_score + 1
                SET game_ended = true
                PRINT "Player 2 wins this game!"

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        IF win = 0
            IF nextTurn = 1
                SET nextTurn = 2
            IF nextTurn = 2
                SET nextTurn = 1
        END WHILE

    PRINT "Player 1's score is " + player1_score + ". Player 2's score is " + player2_score
    PRINT "Do you want to play again? "
    Assign value to play_again

END DO, WHILE play_again = "yes"

END

START ifWinner
INPUT x
INPUT y
IF x = y
    SET playerAtDiagonal = grid[0][0]
    SET same_player = true

    FOR location = 1 to grid_size-1
        IF grid[location][location] != playerAtDiagonal
            SET same_player = false
        END FOR

    IF same_player = false
        RETURN playerAtDiagonal

IF x+y = grid_size-1
    SET playerAtDiagonal = grid[0][grid_size-1]
    SET same_player = true

    FOR location = 1...grid_size-1
        IF grid[location][grid_size-location] is not playerAtDiagonal
            SET same_player = false

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        END FOR

        IF same_player is false
            RETURN playerAtDiagonal

    SET playerAtRow = grid[x][0]
    SET value to same_player = true

        FOR location = 1 to grid_size-1
            IF grid[x][location] != playerAtRow
                SET same_player = false
        END FOR

    IF same_player = false
        RETURN playerAtRow

    SET playerAColumn = grid[0][y]
    SET same_player = true

        FOR location = 1 to grid_size-1
            IF grid[location][y] != playerAColumn
                SET same_player = false
        END FOR

    IF same_player = false
        RETURN playerAColumn

    RETURN 0

END ifWinner

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